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TECHNICAL REPORT ON CUP OF EXCELLENCE COMPETITION

BOLIVIA RURAL COMPETITIVENESS ACTIVITY

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TECHNICAL REPORT ON CUP OF EXCELLENCE COMPETITION

BOLIVIA RURAL COMPETITIVENESS ACTIVITY

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Technical Report on Cup of Excellence Competition (International Phase) for Bolivia, 2007

Report submitted October 29, 2007

Prepared by Paul Songer

Executive Summary

The Cup of Excellence program for Bolivia was held from September 24 to October 6, 2007. This report covers the International section that began on October 1 and ended with the awards ceremony on October 6.

The National Jury qualification had been conducted by Erwin Mierisch and the data analyzed by Paul Songer. A total of 24 participants took the test and 17 (71%) were qualified at different levels for the National Jury, quite a high percentage. This could be due to (1) greater jury experience, (2) more skilled cuppers taking the test, and/or (3) better selection of samples and improved sample preparation.

The pre-selection of samples was led by Erwin Mierisch in Caranavi. He had to wait an extra couple of days so that samples could be turned in and cupped through 115 samples, of which 80 coffees were selected to enter the actual competition.

Silvio Leite led the National Jury in cupping these samples in Caranavi. A total of 30 samples were eliminated in a single round, most due to defects. Leite had concerns that the smoke in the air (noted by Songer in his 2005 report, the result of extensive crop burning that occurs at this time of year in the Yungas) would result in International panelists having difficulty with aromatics. His suggestion was to hold the competition in La Paz, but this was rejected due to the known sensory difficulties at high altitude. A combination of less smoke and more rain minimized the smoke and panelists did not report any trouble, but this may be a consideration in future competitions.

The International Jury was led by Paul Songer. A total of 50 samples were submitted to the International Jury and a total of 26 samples were selected to go to auction. Four Presidential awards were given (for samples that scored 90 and higher).

All judges remarked upon the good quality of most of the samples, indicating that there is a general recognition of which coffees are of high enough quality to compete in such an event. However, possibly because most of the coffees were of such uniform high quality (clean and sweet with good acidity), the International Jury was reticent to give scores in the 88 and higher range; most scores were in the 82-87 range. Using 3 head judges did not seem to present any significant miscommunication or other problem due to the judges' regular communication, written reports, and receiving of scores.

The in-country team did an thorough and professional job of coordinating the event, preparing the samples, and compiling the resulting data. The competition was coordinated by Jorge Valverde, assisted by members of the ARCO rural competitiveness project financed by USAID. Samples were roasted by Felix Chambi, table preparation was overseen by Rene Viadez, and data handling was performed by Jorge Rojas.

The farmer roundtables were held on Friday, October 5 and the final awards ceremony was held on Saturday, October 6. Both these events were highlights of the event, with the awards ceremony especially well received.

One major challenge was finding an appropriate source of water. The original water used had changed significantly from the tests done in 2005 and contained considerably more sodium than previously. The water eventually used was adequate, but a better source could make the coffee taste more consistent and sweeter, possibly resulting in higher scores for the samples.

In conclusion, the Cup of Excellence for the Bolivia 2007 was managed professionally with good technical results. The use of different judges for the various phases of the competition worked well in this case, though there had been problems in the past. The reasons that this worked well is due to the long experience of all judges and good communication.

May 16, 2007

Technical Report on Cup of Excellence Bolivia 2007 (International phase)

Report prepared by Paul Songer, Technical Director of Cup of Excellence and Head Judge for the International section of the Bolivia competition

Introduction and Organization of Report

The Cup of Excellence program was held in Bolivia in 2007 over a period of approximately 3 months, beginning in August with pre-selection and ending October 5, 2007 with the International Jury award ceremony. The National Jury qualification was held in Caranavi in August, led by Erwin Mierisch. The pre-selection and national jury phase were also held in Caranavi (with Mierisch leading the pre-selection and Silvio Leite leading the National section) and International jury was held in Coroico (led by Paul Songer).

To have a valid sensory test, one must consider not only the evaluation of the samples, which is the main purpose of the COE competition, but the uniform preparation of the samples (often a source of experimental error), and the behavior and training of the panelists evaluating and responding to the samples. The intention of this report is to make conclusions regarding these key aspects of the test: (1) quality of the samples submitted, (2) test procedures and protocols (including sample preparation), and (3) panelist responses (including scores and scoring behavior). Analyzing the results of such a properly conducted test requires standards of reporting what is perceived, including the forms used, the flavor attribute qualities on which the panelists are focused, and the scales on which the panelist expresses the quantitative aspects of those flavor attribute qualities.

Organization of the Report

The event is reported according to the phases of the competition, with emphasis on the procedures used and the time elements, but including summaries of results and data evaluation. For Bolivia 2006, these phases included:

1. General notes outlining procedures and personnel
2. Qualifying the national jury (supervised by Erwin Mierisch, with Paul Songer performing data analysis)
3. Pre-test qualification of samples (supervised by Erwin Mierisch)
4. Selection of Cup of Excellence coffees by the National Jury (led by Silvio Leite)
5. Selection of Cup of Excellence award winners by the International Jury

Since the author of this report did not conduct the pre-test qualification, pre-selection of samples, or the National phase of the competition, remarks on these phases are taken from written reports and notes from meetings. The final section of the report summarizes, makes conclusions, and suggestions for next steps.

Sample Preparation Parameters

Water: One major challenge was finding an appropriate source of water. The original water used had changed significantly from the tests done in 2005 and contained considerably more sodium than previously. Several water analyses for potential sources of brewing water were sent beginning in August. The analyses revealed that the water sources were either at one extreme (high TDS, high concentrations of sodium, high alkalinity) or the other (very low TDS, almost no mineral content, and low pH, indicative perhaps of reverse osmosis filtration). The final source was taken directly from a glacial water source.

Table 1: Water quality parameters

Testing Parameter	Results	Recommended Range (COE testing protocols)
pH	7.6	6.8 to 7.5
Total alkalinity	50 mg/L	17 mg/L to 85 mg/L
Total hardness	50 mg/L	50 - 150 mg/L
Chlorine	0 mg/L	0 mg/L

The pH was out of range, but the total alkalinity was not excessive. Higher alkalinity results in greater expansion of coffee particles upon infusion with water and quicker extraction, along with neutralizing the naturally present fruit acids in coffee. The problem with total alkalinity is that this measures the alkalinity that is “in reserve” and will significantly change the taste of the coffee over time, especially in terms of its acidity. There was some inconsistency noted, but it did not seem to be more extreme than usual. However, this could have contributed to lower scores for some samples as panelists would initially give high scores, and then move the scores lower as the coffee changes. Higher calcium levels would result in more complete extraction of carbohydrates and a sweeter cup, which adds to the appreciation of the coffee.

A reverse osmosis filter was being set up, but water that is too pure (and too low in pH, which results from reverse osmosis) does not make good coffee. Unfortunately, correction of such parameters is technically difficult and expensive. In most COE countries, bottled water is used, but this was not feasible for this program.

Coffee roasting: Samples were roasted on site using the Probatino roasters provided to Cup of Excellence by Probat. Erwin Mierisch had set the roast standards during the pre-selection phase and these standards were used throughout the competition. Felix Chambi had considerable roaster training from previous competitions and organized the roasting so that with 2 assistants he could monitor the most important stages of the roast for both machines. Organizing roasting this way resulted in very consistent roasts. In some cases where 2 roasting technicians are used (one on each machine), one of the technicians is more consistent that the other.

Sample weighing: The most recent COE protocols call for each sample to be re-weighed after grinding. The procedure is to tare the cup, then weigh the mass that comes out of the grinder. This was done at all levels using scales accurate to 0.1 gram, as specified for competition sample preparation parameters. Only one cup was sent back during the competition due to wrong measurement.

Figure 1: The Grindmaster grind burrs (left) break the coffee using teeth in a concentric circle, while most other grinders use blades that eminate radially from the center (right). Each type has its advantages, but they produce significantly different particle size distribution.

Grinding: It was thought that 2 grinders would be available for sample preparation, but one was a Grindmaster while the original grinder was a Bunn grinder. These have different burr structures and produce different particle size distributions (see Figure 1). It was thought that preparation of so many samples with one grinder could cause delays, but this did not occur and samples were prepared in a timely manner. The grinder adjustment was determined using the field particle size analyzer.

Table preparation: Samples were well prepared in a timely manner using standard protocols. Sample preparation was supervised by Rene Viadez, who did an excellent consistent job of pouring water at the proper temperature to the proper fill level, as well as grind and measurement.

Data entry and record keeping: During all phases of the competition, a team led by Jorge Rojas handled the data entry, using spreadsheets provided in previous years by the COE technical department. Copies of developed data were received in electronic form by the Head Judge in a timely manner. Final certification of results was done by the auditing firm SGS Bolivia, S.A., who received copies of the judges' score sheets and the spreadsheets prepared by Rojas' team.

National Jury Selection Test

A series of tests were given in late August, 2007 to determine which panelists should be invited to serve on all the Cup of Excellence National Juries for Bolivia, 2007. Each

panelist cupped and scored 24 selected samples representing a variety of quality levels. These scores were analyzed in detail in the report "Summary: Jury Selection for Cup of Excellence Competition for Bolivia, 2007".

Panelist cupping skills are analyzed in terms of:

- Correlation with quality of sample as determined by both the panel and the initial sample selection.
- Scoring skills in terms of range of scores given by individual panelists and closeness of scores to the average.
- Consistency of scores of the same samples submitted 3 times to a panelist.

For purposes of analysis, participating panelists were assigned a code to prevent any potential prejudice on the part of the data analyzer. These codes were assigned by auditor Jorge Rojas and a copy of the key was sent to Suzie Spindler, Executive Director for Cup of Excellence.

A total of 24 participants took the test and 17 (71%) were qualified at different levels for the National Jury, quite a high percentage. This could be due to (1) greater jury experience, (2) more skilled cuppers taking the test, and/or (3) better selection of samples and improved sample preparation.

Sample Pre-selection

The pre-selection was handled by Erwin Mierisch and also took place in Caranavi. He sent the following report regarding his experience.

BOLIVIA PRE-SELECTION OBSERVATIONS AND RECOMENDATIONS

- Make sure that you have enough coffee sample before you begin. For pre-selection there was only 1 kg of dry parchment submitted, it came out to be the equivalent of around 730 gr of classified and sorted coffee. There were two coffee samples that had only 800 gr of dry parchment. For the national jury you will need at least 2kgs of classified and sorted coffee sample. For the International jury you will need at least 3kgs for the coffees going to the top ten cupping session.
- Have all coffee samples milled, classified and sorted before the cupping week. We cannot expect the cuppers to cup all day and then stay late into the night milling, classifying and sorting the coffees that are to be roasted that night and cupped the next day. It is too exhausting to do so and it can hinder the cupping abilities of the cuppers.
- Two (2) samples were rejected because of high humidity; one was above 32% and the other around 20% humidity. The humidity of all the samples should be checked at the authorized warehouse and rechecked before the cupping sessions. We do not want to have a winning coffee that has high humidity because the probabilities of it crashing before it gets to the roaster is very high and it puts the country and CoE's reputation in jeopardy.
- Start roasting during the morning since the best natural light is during this time. I understand that in the past the roasting took place at night because the samples had to be milled and sorted after the cupping sessions. There is no reason to wait till night if the samples are ready before.
- Have the roasters themselves be strict with the roasted samples they are roasting when comparing them with the roast guide. If they have doubts about ceratin roasts have the cupping room coordinator (RENE) check it for them before the head judges get to check it so they can have a head start in re-roasting the samples that will be pointed out by the head judge. The roasters and cupping room coordinator was too lenient with the samples that were roasted out of range of the roast guide.
- KEEP THE ROAST FOR THE NATIONAL AND INTERNATIONAL JURY AS WE HAD IT SET FOR THE PRE-SELECTION.

- Weigh out in whole bean in every cup and then re-weigh the exact grounds that will be cupped after grinding the whole beans.
- Keep an eye on the grinder since someone in the back room tends to move the grind setting. I left with Rene the grind sieves to measure out the proper grind of the grinder if the measurement of the grind has to be measured at some time. Please have Rene turn these sieves over to Paul Songer after the international jury since they belong to him.
- Have more cups available for the national and international jury since we had a hard time having to wait for cups to be rinsed before the next cupping session. If the new cups that are in customs are bigger than the current ones please keep in mind the proper amount of coffee that has to be placed into them before grinding and after grinding them. If they are like the Nicaraguan cups, we use 13 grams in whole bean and 12.5grams in ground for cupping.
- Do not wash the cups with regular soap during the rinse, if they cannot find odorless dishwashing soap for this purpose; have them rinse out the cups with regular warm water. No soap in really necessary.
- Paper towels and Napkins had a funky perfume smell to them. Please have odorless paper towels or napkins for the next processes.
- Have a talk with cuppers once again at beginning of the national jury since during the pre-selection we used to have several cuppers come out with negative descriptors about a coffee and specifically that they did not like the coffee and still they gave the coffee a score above 80. Several coffees they described as lacking sweetness they would score 84-85. I tried to re-enforce several times about how cleanliness and sweetness are the foundations of CoE winning coffees.
- We finally came too as a group at the end; we used to agree about the very good coffees and poor coffees. We had trouble agreeing or being calibrated with the mediocre coffees.
- There are 15 very good national jury members in Bolivia, both roasters Felix and Carmelo are very good roaster. Felix being the most calm and patient roaster, most of the re-roasting he ended up doing. Rene, the head cupper of FECAFEB and the cupping room coordinator is an excellent asset to the back room; he commands the respect of all the cuppers and is someone you can rely on.

FOR THE NATIONAL JURY:
Have for the calibration sessions enough coffee for 2 sessions of:

- 2 different coffees with a score of 75-76 (you can use some of the samples left over form the pre-selection).

- 2 different coffees with a score of 80-81 (you can use some of the samples left over form the pre-selection).

- 1 Coffee with a score of 84 and above: you can use the same one we used for the pre-selection, this was an excellent coffee that didn't compete.

- 1 Very astringent coffee from the pre-selection.

- 1 slightly fermented coffee; a mixture of the fermented coffee we used during the calibration of pre-selection with a good clean coffee in order to bring down the intensity of fermentation.

FOR THE 1ST DAY OF NATIONAL, I SUGGEST (to be confirmed by Silvio Leite)

- 2 sessions of 7 coffees for calibration (the second session could be optional if everyone feels comfortable)
- 4 sessions of 10 coffees of competition coffee (total of 40 coffees)

ALL these coffees would have to be roasted the day before the first day of cupping
FOR THE SECOND AND THIRD DAY SILVIO WOULD HAVE TO PLAN OUT HIS PREFERENCE.

A total of 80 coffees proceeded from pre-selection to the National Jury phase.

The National Jury Phase

National Jury First Round

Samples

Only one round was done in the National Jury for the 80 samples that made it through the pre-selection. Ten of these were rejected for defects and 3 had scores significantly lower than 84 (one sample with a score of 83.96 was passed to the International phase). The scores given the samples by the National Jury were quite high, with 15 scores of over 88 and 3 over 90. A total of 50 samples passed to the International jury. These are shown in Figure 3.

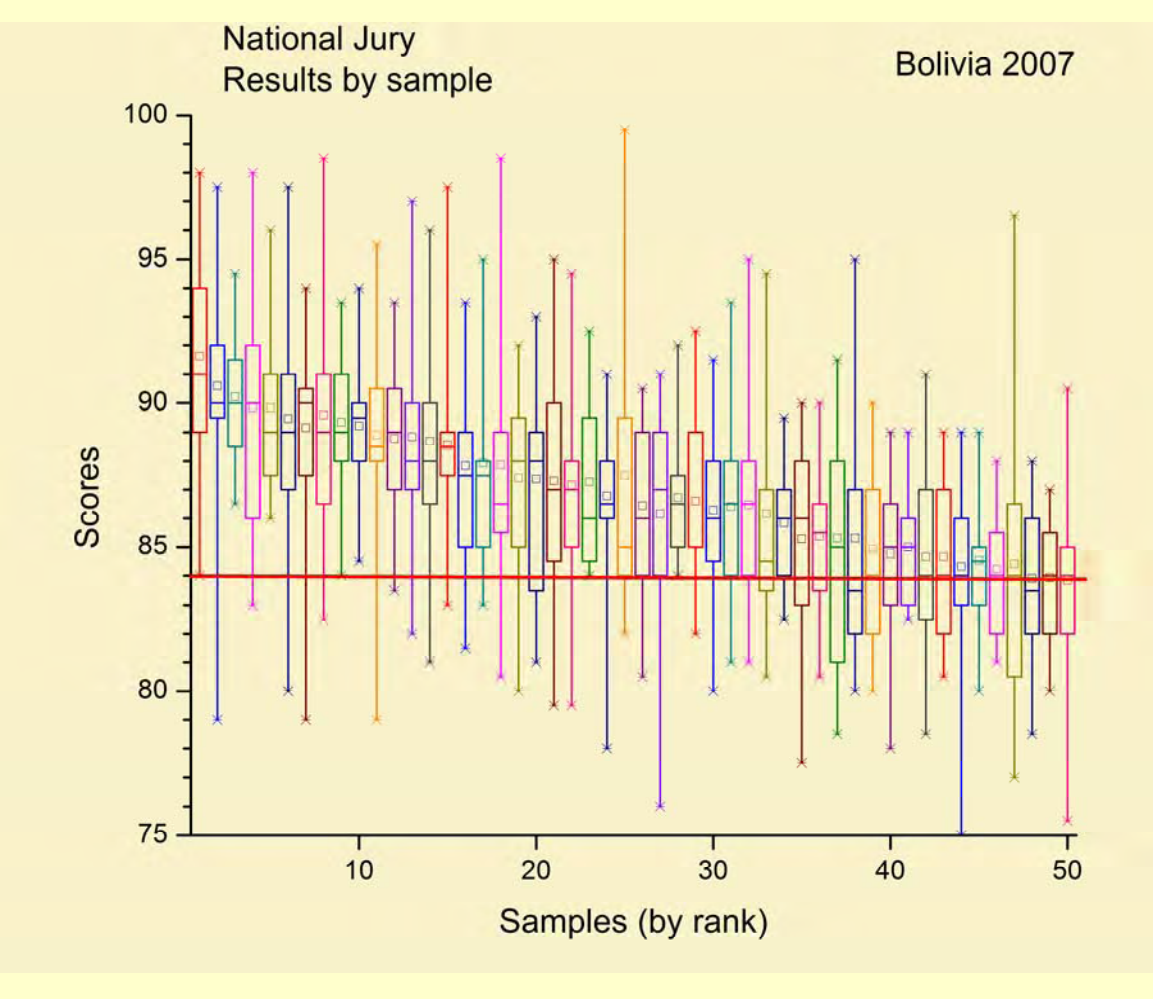

Figure 2: Scores from the single round of the National Jury. The red line indicates the cut-off point of 84. Scores for the best coffees tended to be high and the jury scored over a wide range.

Panelist Responses

The range of scores was quite wide for many of the samples. Most correlations were in the 0.50-0.65 range (indicating they agreed with the score 50-60% of the time) and only 2 panelists had correlation with the final score of less than 0.4 (indicating that they disagreed with the overall score ranking at least 60 % of the time). For national juror evaluation, Leite used a system of counting how many times each panelist scored the samples within the general range of the final score. This obviously took him a great deal of time, though the method was valid. He used this information to determine which National panelists were to participate in the International jury.

During the meeting between Songer and Leite, it was suggested that there be a standardized method of examining judges' scores to evaluate performance. A protocol similar to the National Jury Test could be drawn up in which standard statistical formulas currently available in Excel would be used.

While the jurors selected were definitely well qualified, the use of Leite's method did eliminate one juror that was also arguably qualified (though it would have been a close call). This other juror had the highest overall correlation and scored the vast majority in the 95% confidence range, but did not have as wide a scoring range as those selected. This is illustrated in Figure 4. The range of scores is an important part of the evaluation of scores, but Leite's method emphasizes the importance of giving high scores to the highest scored coffees overall. It is possible that if some panelists do not give high scores to certain samples, they would not be selected regardless of their skills.

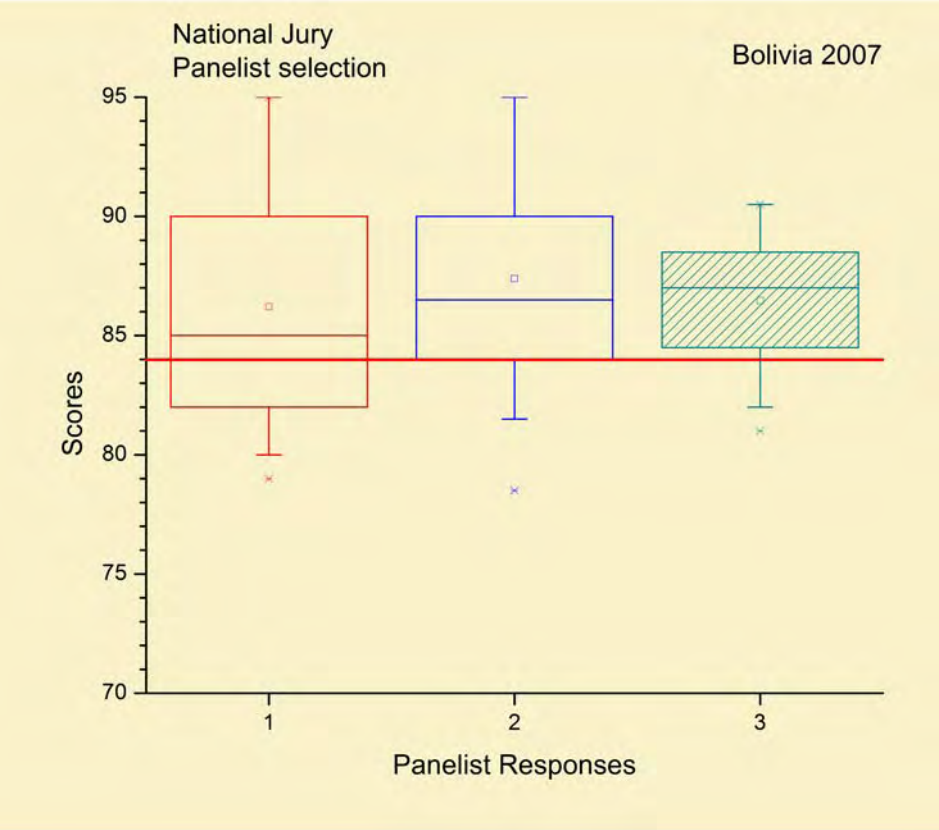

Figure 3: Panelist 3 scored with high correlation, but did not score over as wide a range, but their scores indicated that they recognized the highest quality coffees. They had the highest correlation with final scores and scored most samples in the 95% confidence range.

The International Jury Phase

Sample Preparation

During jury calibration, an off-flavor was noted in the "clean, sweet, balanced" calibration coffee that seemed to be not of coffee origin. The Head Judge thought that this may be the result of soap not being completely rinsed from the cup since it had a sweet perfumed smell similar to dish soap. However, Eduardo Ambrocio, an international panelist from Guatemala, noted that the off-flavor was similar to one he had experienced resulting from storage in certain brands of plastic bags (especially the "ziplock" line). The questionable sample had been stored in a plastic bag for a period of 3 weeks, longer than the other samples. The plastic bags were examined and definitely had the questionable aroma. The storage bags were then replaced.

Roasting: The roasting station was set up on a porch near the river. At first, there was concern that the roaster may not hear 1st pop due to the sound of rushing water. However, by carefully timing the roast and monitoring the temperature, the roaster was able to lean in close enough to hear 1st pop when necessary. Some minor calibration changes were

suggested as the roasts were beginning to go a little fast, slightly deviating from the original standards set up by Mierisch.

Table preparation: Since the sample preparers were well practiced and enough water was prepared, the table preparation was near flawless and no significant experimental error was noted.

Calibration

Calibration was conducted using selected samples, with the same set of samples submitted to jurors 3 consecutive times. As is now standard, an initial presentation on the Cup of Excellence as a program was first given, followed by a more technical description on the use of the COE form.

To define acidity and sweetness in terms of quality (rather than intensity), solutions of acids, sweetness, and astringency were used in combinations and concentrations likely to be found in medium roast coffee. The most common fruit acid appearing the highest concentration is citric acid which is experienced as simple sourness. Other fruit acids such as malic and tartaric acid, while present in small concentrations, add complexity to the perception of acidity and are usually experienced as more desirable. Tannic acid provided the mouth drying effect of astringency, the result of coffee not being picked when fully ripe and the corresponding lack of sweetness.

A range of samples, including some high quality, low quality, and average samples of varying flavor profiles had originally been selected. Unfortunately, the sample that had been chosen to be the best had the off flavor previously noted due to storage in the plastic bags. The result was that no high scoring coffees were demonstrated in the calibration. It is often difficult to find truly great coffees that would get high scores since most of them are entered into the competition, but it is necessary to make obvious a high scoring coffee panelists to score.

First Round

Panelists

Panelists often are quite hesitant to give higher scores in the earlier rounds, since they are getting used to using this form within a new situation and they don’t know what to expect in terms of sample quality. This International Jury had several new panelists and varying scoring styles. Some were scoring within very narrow ranges and there was little agreement in some cases. This was especially true on the first day (the first 3 sessions, illustrated in Figure 4).

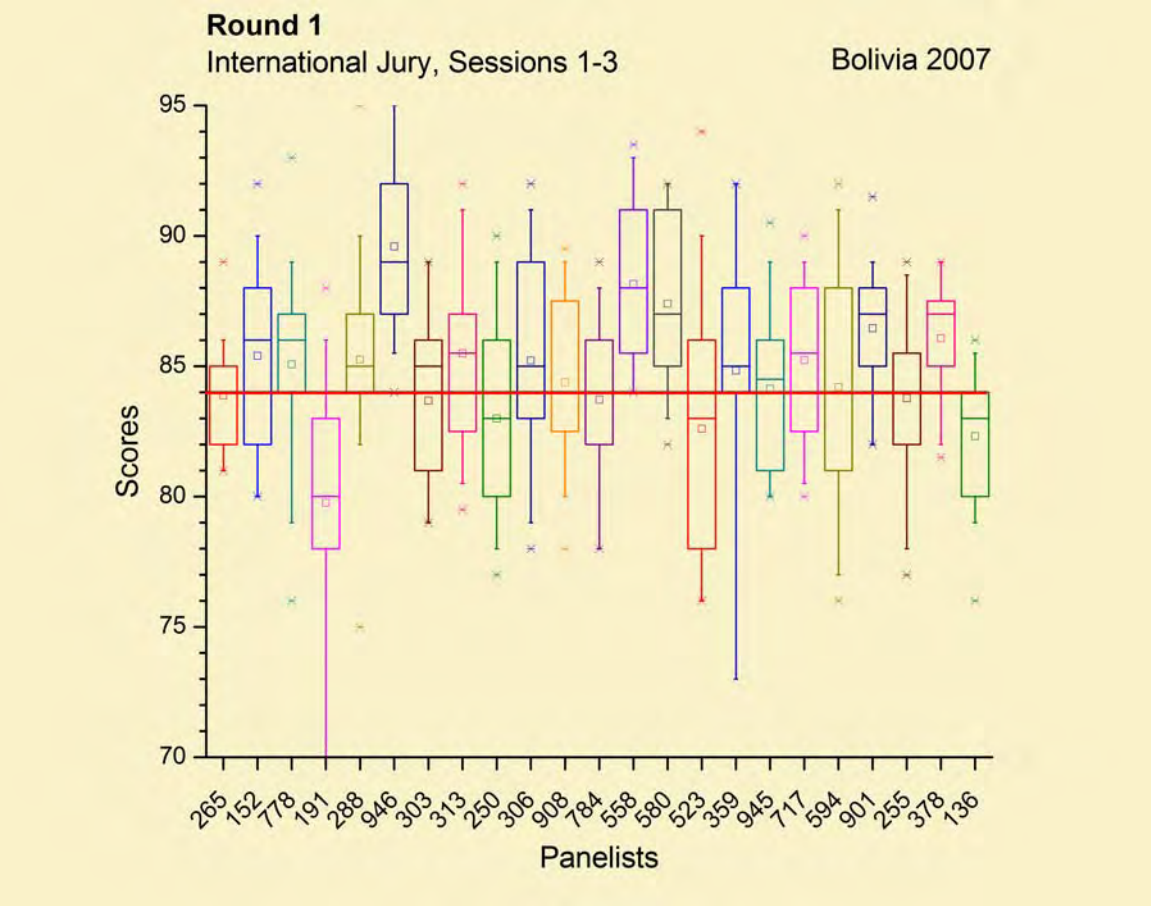

Figure 4: Panelist responses from the first 3 sessions on Day 1 of the first round. One can see that there are many different scoring responses to the same samples (high range, low range, etc.).

Since there were several different styles of scoring, panelist responses for all of Round 1 were grouped using Agglomerated Hierarchical Clustering to determine groupings of scoring styles. This method first considers each set of panelist responses as and individual group, and then combines them into groups based upon similarity of scoring style. Individual scores were then analyzed using box-and-whisker diagrams (Figures 5 and 6).

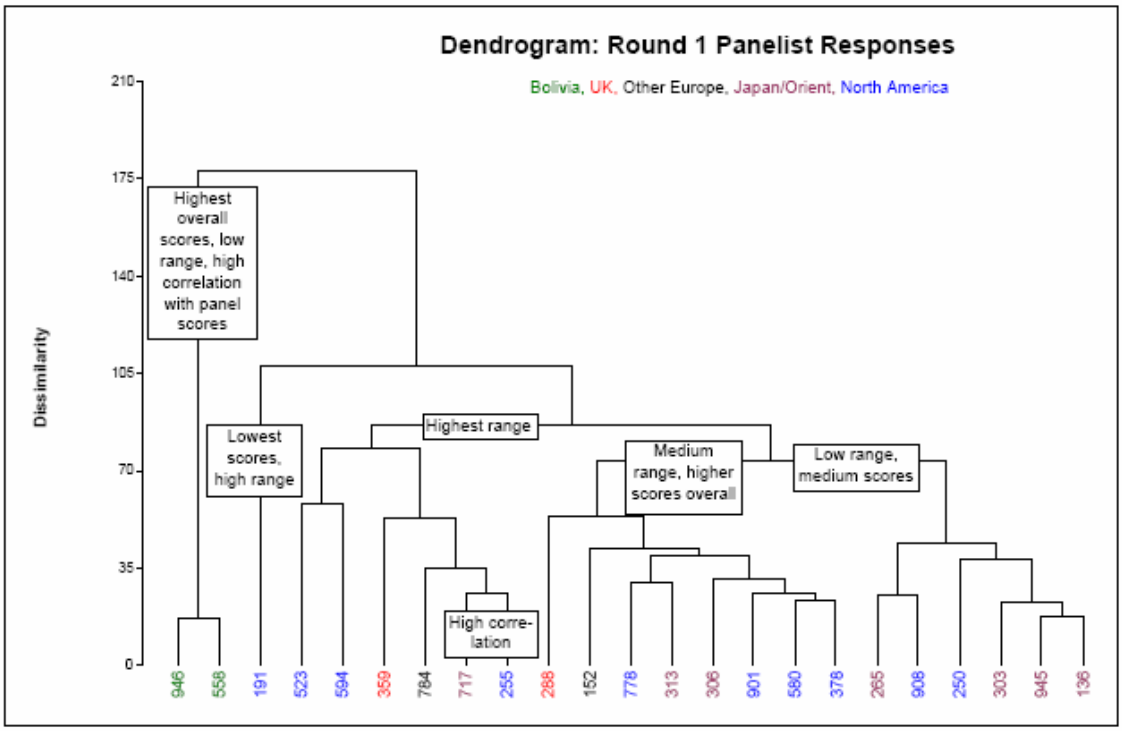

Figure 5: Groups of panelists with similar scoring habits and remarks on their similarity.

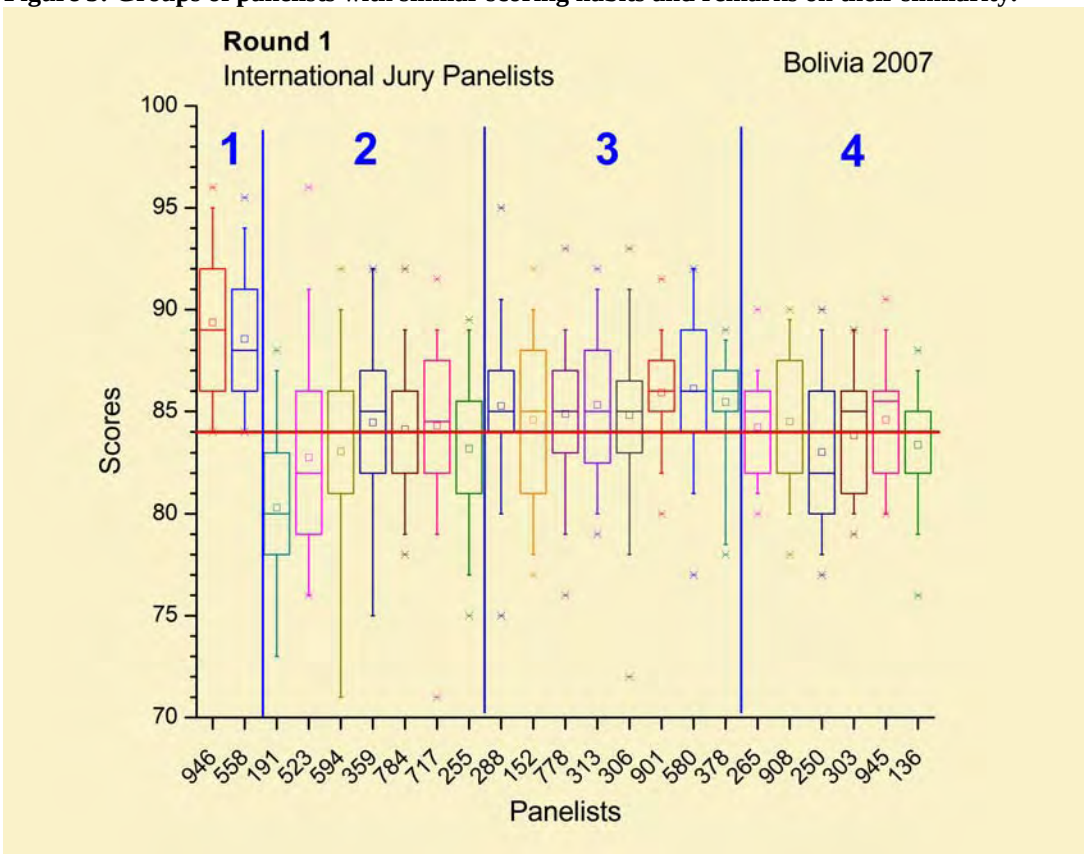

Figure 6: Panelist responses for Round 1. The blue lines indicate the major groups as analyzed in Figure 5.

The highest scorers overall were the Bolivian national panelists (#946 and 558, Group 1 in Figure 6). While they scored in a much higher range than the panel, their correlations with the final score were high, indicating that they agreed on which samples should receive the highest scores but felt that they deserved higher scores than did the rest of the panel. This is often the case with national jurors in an international jury situation as they are comparing the samples presented with Bolivian coffee samples as a whole; by this stage of the competition, the samples presented are quite good. On the other hand, the rest of the international jury is comparing the samples to their entire coffee tasting experience.

Panelist 191 was in their own separate group due to giving scores that were consistently lower than the rest of the jury regardless of quality. This panelist talked to the Head Judge after the presentation of results and asserted their intention to score higher now that they were more used to the form. Group 2 tended to be more critical, though some were characterized by high correlation to the overall scores. Group 3 gave higher scores over a medium range and generally had medium correlations due to giving clean, sweet, but otherwise unremarkable coffees a score in the range of 84-86 (as opposed to Group 2 giving many of the same samples scores from 80-83).

Group 4 tended to have a lower and narrower range of scores accompanied by lower correlation to the final scores. This is usually a sign of unfamiliarity with the system or conservative scoring due to lack of confidence and can be a sign of a less experienced jury.

In a presentation given to the jury upon analysis of scores, the emphasis was on using the entire range of scoring to honestly express perceptions and breaking out of the medium range of scores so that the differences in quality between samples are more clearly expressed. However, most jurors were happy with their scores and thought that they accurately reflected their perceptions, though one (191) indicated that they intended to score the samples higher in the second round.

Samples

The reticence of many panelists to give high scores can be seen in the box-and-whisker plots of the top 12 (Figure 6). This tendency was brought to the attention of jurors during the presentation prior to Round 2.

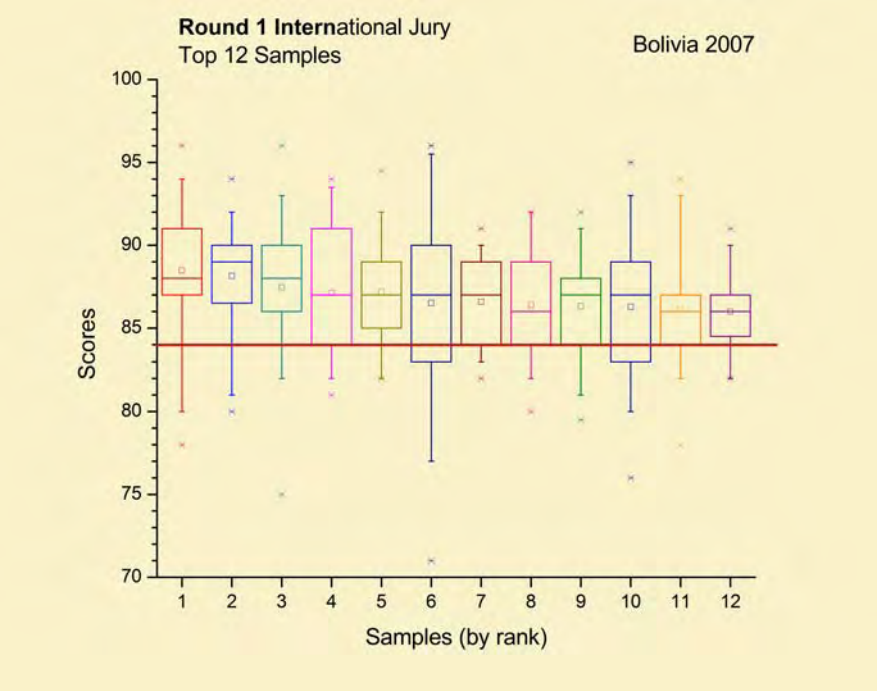

Figure 7: Top 12 samples.

As is often the case, some of the samples that did not officially receive a score of 84 were quite close. These are analyzed in Figure 8.

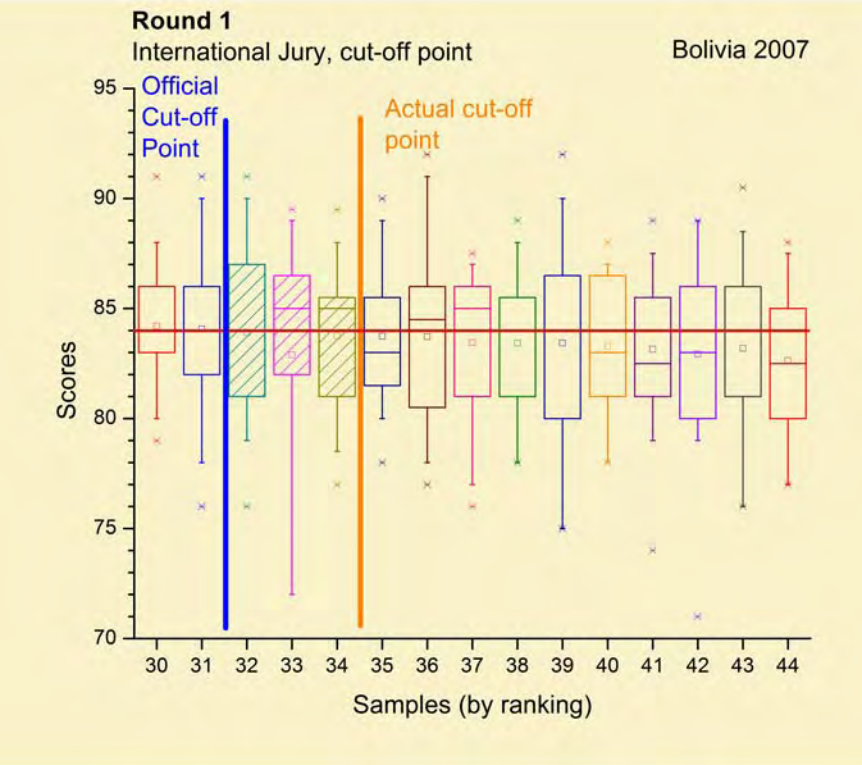

Figure 8: Samples in the region of the cut-off point.

While the samples ranked at 32 through 34 did not officially receive a score of 84 or more, they all were given scores of 84 or higher by at least 50% of the panel, indicating that the majority of panelists found these samples to be worthy of re-examination. Given the scoring tendencies of this jury, it seemed possible that a few low scores could be dragging down otherwise acceptable samples. A total of 34 samples were selected to proceed to the 2nd round.

Summary

The samples were rated lower than normal in a typical first round and considerably lower than the National Jury. This was apparently due to newer panelists becoming familiar with the modes of scoring and a stricter approach on the part of some more experienced jury members.

Second Round

Prior to the second round, a presentation on descriptive cupping was given. This is an important training tool to get realistic and consistent descriptors from panelists, but in combination with the scores presentation resulted in cupping not beginning until 10 AM. It is possibly desirable to do a more elaborate but optional presentation on descriptive cupping could in the afternoon following the last session of Round 1.

During the final 2 rounds, descriptors are recorded as well as panelist scores. These are the qualitative types of flavors found in the coffees, rather than the quantitative analysis of relative quality represented by the scores. The descriptions can be particularly important to the growing country since they can use these results to see which flavor attributes present in their coffee is provoking the most positive response and how panelists describe these flavors.

The descriptive method currently used during COE competitions is (1) initial training defining a good descriptor and explaining the process of arriving at a description, (2) taking down the descriptors during the discussion period, (3) refining and/or generalizing the description when necessary, and (4) putting the resulting attributes to a panel vote.

The data from the second round was corrupted on the spreadsheet received from the auditing team, but was recovered by the technical department of ACE. This can happen due to problems with the spreadsheet itself or problems with the transfer (such as not all information being saved to the medium) or the medium of transfer itself (the “memory stick” or disk). The auditor should check to see if the spreadsheet originally provided by ACE for data entry is still intact and can be used. If not, a new copy of the spreadsheet can be provided for future events.

Panelists

Two panelists were not able to participate in all sessions of Round 2 due to illness. Their results were eliminated from the round. A summary of panelist responses to Round 2 can be seen in Figure 9.

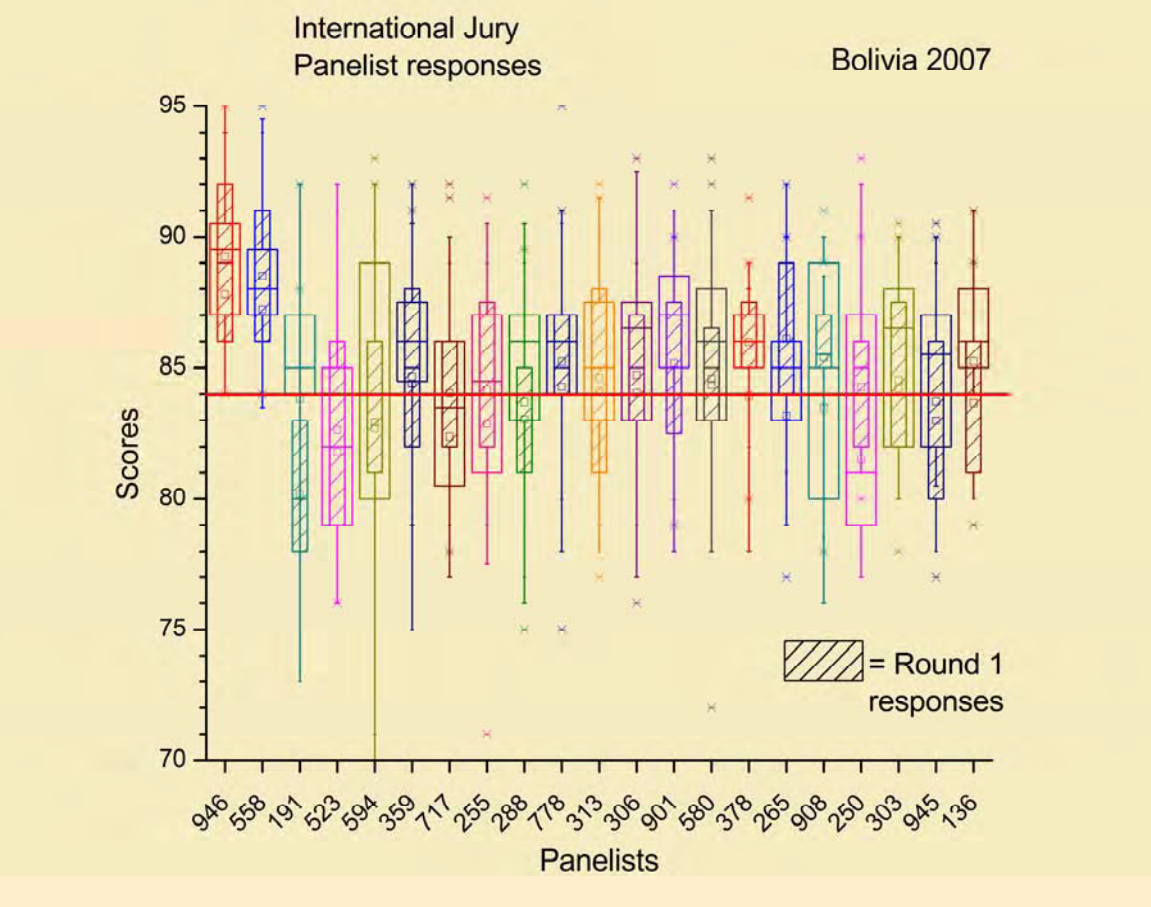

Figure 9: Panelist responses for Round 2 with responses from round 1 overlaid.

Overall, similar scoring habits prevailed from the first round. Panelist 191 did increase their scores and panelists 250 and 908 increased their range of scores. Panelists 945 and 136 raised their overall scores; this often happens in the second round after the marginal coffees have been eliminated.

The results were similar to Round 1, with many samples in the 84-86 range, as shown in Figure 10.

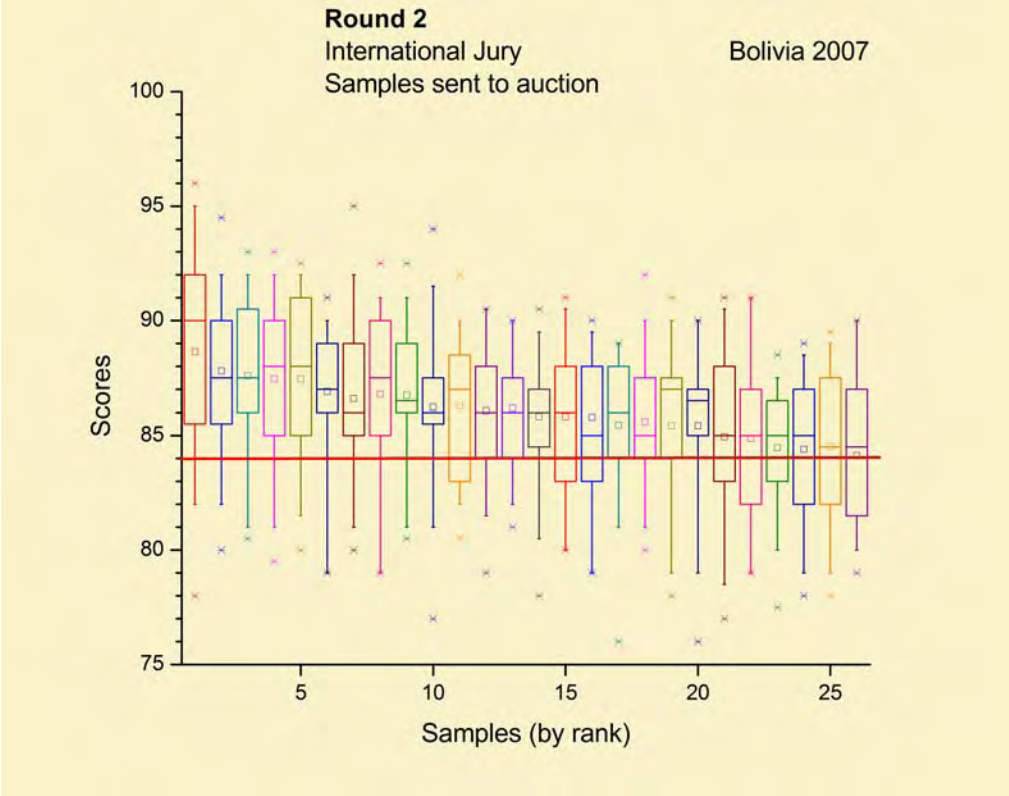

Figure 10: The 26 samples sent to auction by ranking.

Summary

Many of the panelists adjusted their scoring styles during round 2. However, overall the scores were still in the medium range, with only one sample receiving a score of over 90 at this stage.

Final Round

Higher scores are typically given in the final round since panelists are more comfortable with the form, know the samples, and have eliminated questionable samples. They are also encouraged to back up their scores with descriptions that indicate their perceptions about the quality of the coffee. Four Presidential Awards were given indicating a total score of above 90, difficult for any sample to attain when analyzed by such a large and diverse jury (Figure 11).

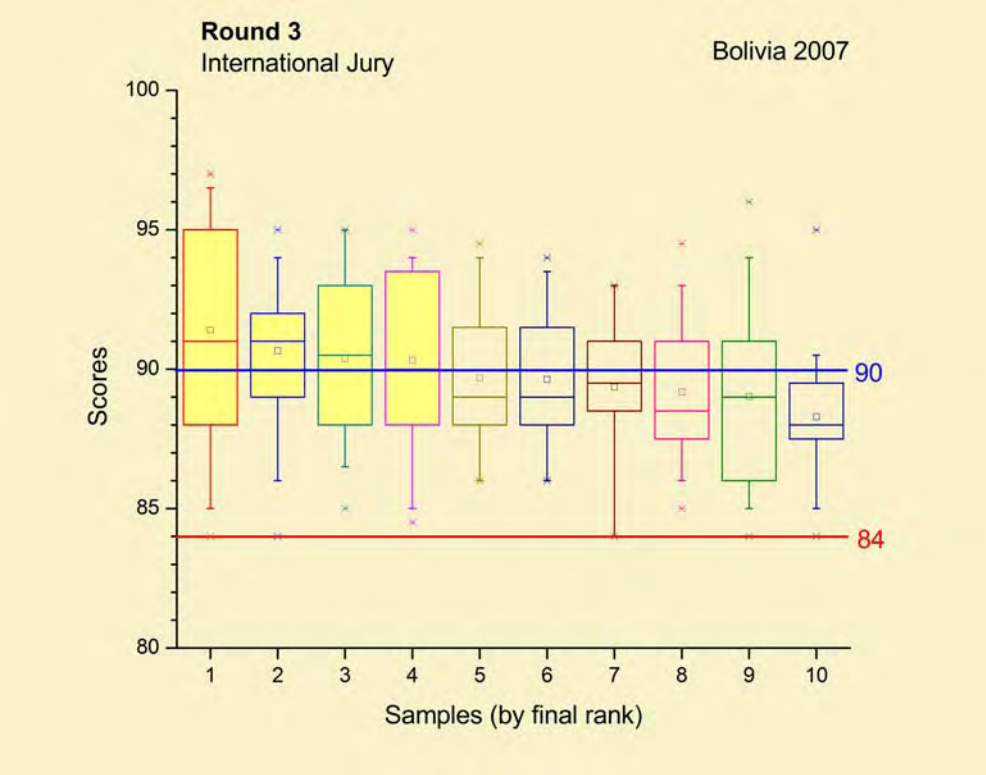

Figure 11: The top 10 coffees. Presidential awards are colored yellow.

The jury's tendency towards medium scores still showed in the final round.

Competition Conclusion

Following the competition, international panelists were invited to meet with farmers and discuss their needs and concerns. This provides a forum in which farmers can directly ask what is required in terms of quality and the buyers being able to communicate their needs.

The awards ceremony was held on Saturday in Coroico. It featured many dignitaries, including the Ambassador to Bolivia from the U.S.A., the minister of agriculture, and the vice-minister of coca growing. The even was broadcast on local television stations.

Conclusions

Conclusions regarding coffee samples: **The samples submitted were of very good quality and most samples eliminated in the early stages were due to defects found in several cups. The National Jury selected samples of appropriate quality, though their scores were wide ranging in some cases. The International jury was not easily impressed, however, and the samples were given closer scrutiny during the international phase of the competition.**

Conclusions regarding test procedures: **The professionalism of the staff in terms of sample preparation and close observation of protocols was remarkable, especially**

during the International Jury event. The sample preparation, including roast and table preparation, was near flawless and data entry was performed in an accurate and timely manner. The event was well organized by the in-country staff.

There were water quality and environmental issues, something which cannot always be controlled. The water quality was variable and a glacial source was finally used. The smoke that dominates the atmosphere during this time of year in the Yungas did not prove to be a problem, but may be a problem in future years.

Conclusions regarding panelists: **National panelists had considerable cupping skills and were extremely conscientious in cupping the submitted samples, though in some cases their scores were highly variable.**

This was a less experienced jury of International Panelists and they demonstrated many of the tendencies and habits that occur due to lack of experience. Many scored within narrow ranges and their results did not correlate to the total panel responses. This can be also due to the fact that these samples were arguably of similar very high quality. Throughout the test, the panelists did not give many scores of 93 and higher to samples, though 4 Presidential awards were given.

Final Conclusion: The Cup of Excellence Bolivia 2007 was a technical success. The National Cuppers selected multiple samples of high quality. The International Jury was somewhat strict in terms of scoring, but generally responded positively to the samples and solid selections were sent to auction. Most notable was the professionalism of the event organization and sample preparation staff.