The Coffee Report

for

The First United Methodist Church of Evanston, Illinois

August 6, 2007

By:

John Hardy

Jamaica Blue Mountain Beans

A recent survey of First Church members regarding Sunday schedules produced an unexpected result. Many commented: “We need better coffee!”

It's easy to make great coffee. Unfortunately, it's easy to make lousy coffee too. If we can reliably provide great coffee, more people will come to church, they will be in a better mood, they will stay longer, they will get more involved, pledges will increase and more of God's work will be done.

Brew it and they will come.

The Current Situation

Today the coffee is prepared at First Church the same way it has always been prepared, using percolators, often prepared by volunteers. It's no mystery why First Church members say we need better coffee:

1. The coffee that is used for brewing is often stale.
2. The percolators burn the coffee during the brewing process as they boil the water *and coffee* to force it up the stem tube.
3. The percolators are not always properly cleaned, further degrading the quality of the brewed coffee.
4. The percolators are so slow (around 1 cup per minute) that it takes well over half an hour to brew a batch of 36 cups. The brewed coffee is old before you pour the first cup.

Coffee Sources: The coffee that is used for the brewing process comes from Equal Exchange, a Fair Trade organization. It is ordered by our office manager, Joan Kealey, whenever she, or our custodian, Lee Peaks, notices that we are running low. If time is critical, coffee is purchased from a local store. The church uses about 10-15 pounds of coffee per month in a few varieties, decaf and regular.

Coffee is normally purchased pre-ground in a drip grind because a percolator grind is not readily available. Using the wrong grind can affect the brewing process. A drip grind is finer than a percolator grind. This can slow the movement of water through the grounds, possibly flooding the coffee basket. Very fine particles of drip-grind coffee grounds pass through the basket and into the tank, and eventually into the coffee cup.

Whatever the source of the coffee, the freshness is often compromised for the following reasons:

1. It has been sitting in a warehouse or on a store shelf for a long time.
2. It is pre-ground, with the freshness deteriorating from the moment it is ground.
3. Once the coffee container is opened and air gets to the grounds, the freshness deteriorates even further. Coffee containers are sometimes open for months before the coffee is completely consumed.

Percolators: There are ten percolator pots in the kitchen. Five are made by West Bend, four by Farberware and one by Lancaster Colony. They range in capacity from 8 to 55 cups (a cup is 5 or 5.5 ounces, depending on the manufacturer). They are listed here in order of total cup capacity:

Manufacturer	Model	Cups	Watts	Material	Condition	Price	Parts?	Mfr. Phone	Web Address	Cup Size	Replacement	Price
Farberware*	138RY	08	1000	Stainless	Good	--	No	800-233-9054	www.esalton.com	5.5 oz.	FCP280	$35
West Bend	58030	30	1090	Aluminum	Unknown (in storage)	$30	No	866-290-1851	www.westbend.com	5.5 oz.		
West Bend	27210	30	1190	Aluminum	Missing stem and basket	------	No	866-290-1851	www.westbend.com	5.5 oz.	58030	$30
West Bend	9308	36	1090	Aluminum	Missing stem and basket	------	No	866-290-1851	www.westbend.com	5.5 oz.	58036	$35
Lancaster Colony	AP36S	36	1320	Aluminum	Good	$135	Yes**	800-292-7260	www.lccinc.com		-----	-----
Farberware*	L1360	36	1150	Stainless	Good	------	Yes	800-233-9054	www.esalton.com	5.0 oz.	FSU236	$120
Farberware*	FSU255	55	1000	Stainless	Good	$135	Yes	800-233-9054	www.esalton.com	5.0 oz.	-----	-----
Farberware*	FSU255	55	1000	Stainless	Good	$135	Yes	800-233-9054	www.esalton.com	5.0 oz.	-----	-----
West Bend	3500	55	1500	Aluminum	Good	------	No	866-290-1851	www.westbend.com	5.5 oz.	13500	$101
West Bend	3500E	55	1500	Aluminum	Missing stem and basket	------	No	866-290-1851	www.westbend.com	5.5 oz.	13500	$101

*Farberware is now an eSalton brand.
**Expensive parts compared to Farberware: Stem: $33, Basket: $22.50. Farberware parts are $8.95 for the stem, $9.95 for the basket.
Prices are approximate.

Condition of Percolators: There are problems with some of the pots. Three of them are missing the stem and basket, and replacement parts are no longer available. Therefore they cannot be used to make coffee, but they can be used to heat water for tea. There are a couple of coffee baskets and a stem that don't appear to fit any existing pot, though they may belong to the pots that are missing parts. If so, they don't fit very well. It's all a little vague. Note the dirty sight tube on the largest percolator on the right (West Bend #3500E).

The West Bend 3500 and 3500E are so similar that it is not clear which one is missing a stem and basket. Parts are no longer available.

The West Bend model #58030 is in a box meant for the model #9308 on a shelf in the store room. Exact condition unknown.

The 36-cup Lancaster Colony pot and 36-cup Farberware pot are so similar (the two middle images on the previous page) that the stems and baskets are often used in the wrong pot. They seem to work that way, but the base of each stem is a slightly different diameter and design, and the cavity in the bottom of each pot where the stem goes is slightly different. This must affect the brewing process in some way. The stem of the Lancaster Colony pot is slightly bent at the base, affecting the way it fits in the bottom of the pot. This may also affect the brewing process.

Repair Parts: Some models have been discontinued and parts are no longer available. Some pots have been replaced with similar models, but the parts are apparently not interchangeable. Regarding the almost-identical Lancaster Colony and Farberware pots, a replacement stem for the Lancaster Colony is $33.00. The Farberware stem is $8.95. There's a similar problem with the baskets: $22.50 vs. $9.95. The Farberware stems have springs on them, others don't. Or are the springs missing? And what do those springs do?

Brewing Speed: These percolators brew coffee at a rate of around 1 cup per minute. They operate on 120 volts, consume 1000 to 1500 watts during the brewing cycle and have power cords with conventional 3-prong plugs so they can be plugged in almost anywhere. This is convenient, but there is a limit to how much power they can consume (1800 watts maximum for a 15-amp circuit), so the brewing speed is slow. If you need 36 cups of coffee, you must start the brewing process 36 minutes before you actually need the coffee. Note that many commercial *drip* coffee makers, such as those made by Bunn, Fetco, Newco, Grindmaster and Curtis, operate on 240 volts and consume anywhere from 3000 to 7500 watts, depending on the specific model. They are wired to dedicated power circuits that provide as much power as necessary to get the job done. They can brew 4.4 cups or more per minute for a single brewer, depending on the model. Need 36 cups of coffee? Done in less than 9 minutes.

Problems with the Percolation Process: Many people think that there are problems with the basic method of percolation. Water in the pot is heated to the boiling point at the base of the stem tube and forced up the tube to splash onto the coffee grounds in the basket. The water absorbs some of the coffee as it percolates down through the grounds, then back into the pot. Gradually it is *coffee* that is heated to the boiling point and forced up the stem tube. Heating coffee to the boiling point hurts the flavor.

The brewing temperature is a critical part of the process. The ideal temperature is usually specified as between 195-205 degrees Fahrenheit. You can find commentary on the percolation process and other brewing methods at the following sites:

http://home.surewest.net/frcn/Coffee/METHODSperc.html
http://www.ineedcoffee.com/03/brewing/
http://www.howtobrewcoffee.com/percolator.htm (see “Notes” at the bottom)
http://www.thecoffeefaq.com/3brewingtechniques.html#percolator (See point #3.9)

Electrical Circuits: There are two outlets at the south end of the kitchen on the way to Great Hall. These are the de facto coffee brewing outlets. I use them when brewing regular and decaf coffee for Thirty-Niners. Lee Peaks uses them on Sundays. In the photo to the right you can barely see them (highlighted) behind the screen, to the right of the ladder. Of course, you have to move the screen and the ladder to use them.

The outlets are on a single 20-amp circuit with a capacity of 2400 watts. Depending on which two pots are being used, the 2400-watt capacity could be exceeded, tripping a circuit breaker.

A third pot must be plugged in somewhere to provide hot water for tea for some events. There is no good place to do this.

Kitchen Layout: The coffee pots are stored on a wire shelf at the north end of the kitchen. The wires of the shelf are sufficiently far apart that the legs of some of the pots can fall between them, causing the pots to lean one way or another. Power cords can become tangled in the shelving, or with other pots, or dangle to the floor. Sometimes other things are stored on the shelf, as pictured here, so the pots end up being stored somewhere else.

The pots, lids, baskets and stems are often not stored together as a proper set. The pots may be on the shelf (or they may not), but other parts may be in the dish rack by the sink, or laying on a table, or stacked above the main shelf on another wire shelf that has many odd lids, recycled plastic bags, trays, other containers and baskets/stems of unknown origin stacked on it. The user needs to assemble a puzzle each time coffee is made.

There are stools that are stored in front of the shelf, making it difficult to get to the pots. It is not a user-friendly situation.

A cabinet at the south end of the kitchen contains sugar, artificial cream and sweeteners, Styrofoam cups, stirrers, ground coffee, etc. There are two deep shelves. Some items are difficult to see and reach. Things are not well organized. The de facto electrical outlets are three feet to the left of the cabinet, too far away to use the cabinet as a brewing station.

So, the coffee pots are stored at the *north* end of the kitchen, the coffee supply cabinet is at the *south* end and the pots have to be filled at the sink along the *west* side of the kitchen. At least there are new carts for rolling the pots around.

Cleaning: The pots, stems and coffee baskets are not always properly cleaned after being used. Sometimes the pots are rolled into the kitchen after an event and left there for days without being emptied, much less cleaned. There are no specific cleaning tools or chemicals for doing so. A thorough cleaning should be done periodically with special cleaners to remove mineral deposits. This probably has not been done in a long time.

Water Quality: Tap water is used for brewing the coffee. Evanston has good water, but improvements can be made. The water pipes in the church are old and could be adding deposits to the water.

Who's in Charge? There is no specific person in charge of coffee at First Church. Coffee is prepared by different people, depending on the event. Each person has his or her own recipe for making coffee, so the results are inconsistent. Some volunteers don't know all of the details of the process. The first time I made coffee for Thirty-Niners in October of 2005 I forgot to put the stems in the pots, resulting in two pots of hot water. Fortunately, Gert Morby and Cate Whitcomb came to the rescue and kept pouring the hot water from the serving spout and back over the grounds in the baskets until we had two pots of "drip" coffee. Probably an improvement.

Recently a pot of coffee for Sunday Fellowship Hour was unusually weak because a volunteer unplugged the pot and moved it to Great Hall before the brewing process was complete (Wait for the red light to go on!). In Great Hall the pots are not plugged in again, apparently with the belief that the coffee will stay sufficiently hot long enough to get the job done (it usually does).

Coffee Strength: Sometimes the wrong proportion of coffee is accidentally used, making it too strong or too weak. Different people use different recipes for their coffee/water proportions, and there are many different recipes in play. Even the equipment instructions vary a great deal. For example, the name plate on our West Bend model #3500 percolator says that for 35 cups of brewed coffee, 3-3/4 cups of grounds should be used. But the replacement for the #3500 (#13500) says to use 2 cups of grounds.

Some people like strong coffee, others like mild coffee, so the results and the expectations are often very different. Different varieties of coffee and different degrees of roasting of the beans (light roast, medium roast, dark roast, city roast, Vienna roast, etc.) require different proportions of coffee to achieve the desired results. The fact that the coffee grounds are often stale doesn't help. The use of drip-grind in a percolator changes the results too. There are far too many variables.

Church Events that Require Coffee

There are many events at First Church that call for coffee:

1. **Sunday morning programs** held before the morning worship service. Our custodian, Lee, prepares about 30 cups of regular coffee. He brings the coffee pot to the foyer, leaves it on a table and plugs it in. It is self-serve.
2. **Fellowship Hour** held after the Sunday service. Lee prepares about 50 cups of regular coffee and 30 cups of decaf. Sometimes there are volunteers to pour the coffee from the pots. Other times, it is self-serve.
3. **Thirty-Niners** monthly pot-luck dinners. 15-30 cups of coffee are prepared, both regular and decaf. I've been making the coffee since October, 2005. I bring my coffee grinder and whole-bean Equal Exchange coffee from home. I grind the beans just before brewing. After brewing I roll the pots into the dining room and plug them in to keep the coffee warm. Self-serve.
4. **Annual All-Church Dinner.** 100+ cups of decaf coffee are prepared. Servers bring coffee to each table in small serving pots.
5. **Annual United Methodist Women/All-Church Dinner**, May 23, 2007: Gert Morby prepared 20 cups of decaf coffee and rolled the pot into the dining room and plugged it in. Self-serve.
6. **Annual Appalachian Service Project Fund Raising Dinner**. 150-175 cups of decaf coffee are prepared. Servers bring coffee to each table in small serving pots.
7. **Rummage Sale** twice a year. Three or four pots of regular coffee, 30 cups per pot, are made throughout the day.
8. **Children's Christmas Program and Dinner.** 100+ cups of decaf are prepared. Self-serve.
9. **Special Events** such as the farewell luncheon for Sara Webb Phillips.
10. **Memorial Services.** These are handled by the United Methodist Women. Decaf only. Silver service is used.
11. **Soup Kitchen.** 55 cups of regular coffee are prepared by one of four church members who coordinate the program. Self-serve.
12. Other

There are staff and committee meetings that might benefit from 12 cups of great coffee if it was fast and easy to make:

1. Church Staff
2. Board of Trustees
3. Staff Parish Relations Committee
4. Finance Committee
5. Investment Committee
6. Renovation Committee
7. Stewardship Committee
8. Long Range Planning Committee
9. Mission and Ministry
10. Other

The main point is, there are many types and sizes of events at First Church, and they require anywhere from 12 to almost 200 cups of coffee.

The Path to a Great Cup of Coffee

It's just water and coffee. How hard could it be? Well, it's easy. Several details, but easy. Here's how it should be done:

Whole Bean Coffee, Freshly Roasted: The first step toward a great cup of coffee is to buy whole bean coffee. Pre-ground coffee begins to lose its freshness as soon as it is ground. But it should not be just any whole bean coffee. It must be freshly roasted. Buy from a supplier that guarantees that the beans were roasted no more than a few days prior to delivery. There are many such specialty suppliers, both locally and via the Internet, so anything less is an unnecessary compromise. Grocery stores often have whole-bean coffee, but there is no way to know how fresh it is (more on that later). Technology has even reached the point where home roasting machines are available for those who want to roast their own "green" beans just before grinding them for even greater freshness.

Ideally the beans should be used within two or three weeks of being roasted, otherwise they begin to lose flavor.

Grind the Beans at Brewing Time: For maximum freshness, the beans should be ground moments before the coffee is brewed. If more than a minute goes by between the end of the grinding process and the beginning of the brewing process, you are screwing up.

Grinders: There are many models of grinders available for commercial use. The main manufacturers are Bunn, Fetco, Newco, Grindmaster and Curtis. The basic models have one bean compartment and one batch size. The batch size can be adjusted, but it is time consuming. This is fine for situations where the exact same coffee beans and batch size are prepared over and over. The next step up is grinders that have two compartments, typically one for regular and one for decaf beans. Some of those provide two batch sizes for each compartment. Some models have removable compartments so that it is easy to change the type of bean being ground.

Enter the microprocessor. Newer grinders provide a way to program the batch sizes by pressing a sequence of buttons on the front panel of the grinder. You program the number of seconds (and tenths of a second with some models) that a door opens to allow beans to drop into the grinding chamber, and the number of seconds that the grinder continues grinding after the door closes, assuring that all of the beans in the chamber are ground. The most flexible grinders have three programmable batch sizes for each of two hoppers.

The latest technology in grinders makes it possible for the grinder to communicate digitally with the brewer. Some models (Curtis) have a data cable connection so the grinder can tell the brewer how many cups to brew based on the batch size of beans that were ground. The brewer then adjusts various parameters accordingly. Other grinders (Bunn) take a wireless approach. They send data to the coffee basket while grinding (yes, there is a microprocessor in the basket handle) via a wireless link. When the basket is moved to the brewer, it tells the brewer what to do via a wireless link. The brewer then adjusts the brewing parameters accordingly. The Bunn system includes two more technological advancements. First, the removable coffee hoppers on the model "MHG" grinder can be programmed (there is a microprocessor in the base of the hopper) so they can tell the grinder what type of coffee they contain. The grinder then tells the basket and the basket tells the brewer. Second, you can program "recipe cards". These cards can be passed under the sensing pickup of the grinder and brewer to quickly reprogram them.

The microprocessor-controlled grinders are very simple to use. The user simply chooses which batch size and which bean compartment of the grinder to use, then pushes the appropriate button to grind the precise amount of coffee required. The wireless data communication takes care of the rest. These grinders can grind a pound of coffee in about 25 seconds.

Water Quality: Coffee is 98% water. Logically, a great deal of attention should be paid to the quality of the water. Evanston is fortunate to have high quality water from Lake Michigan. But there is room for improvement. There are filters available that can reduce odor, sediment and chlorine taste. The filters can also reduce maintenance on the brewer because the water is cleaner.

Water Temperature: Most sources report that water should be at a temperature between 195 and 205 degrees Fahrenheit for brewing. The percolators that we use at First Church actually *boil* the water to send it up the stem tube. As the process continues, there is coffee in that boiling water. This hurts the flavor of the coffee. Drip brewers are superior at controlling the water temperature.

Brewing Equipment: The main manufacturers of drip brewing equipment are Bunn, Fetco, Newco, Grindmaster and Curtis. The drip process is generally regarded as the best process for brewing coffee. The water passes through the coffee grounds only once, and the temperature of the water can be controlled within the ideal range of 195-205 degrees Fahrenheit. Since the most modern of today's commercial drip brewers are microprocessor controlled, the brewing temperature of the water can be programmed and controlled within about 1 degree of the desired temperature.

Microprocessor control enables programming of other functions to brew better coffee. The first function is the wetting of the grounds, also called the pre-infusion time. Quoting from the Bunn site: *"The sprayhead dispenses hot water and then turns off, allowing the wetting phase to complete. Pre-infusion ensures that the coffee will be ready for the extraction phase when the sprayhead turns back on."* The pre-infusion time, the pause afterward and the brewing time are programmable. The brewing time can even include pulse-mode where the water flow is turned on and off repeatedly at programmed intervals. This can be helpful in some situations.

Commercial drip brewers brew coffee much faster than our percolators – 4.4 cups or more per minute vs. around 1 cup per minute. Our percolators were designed to be convenient to use, operating on 120 volts, consuming around 1000-1500 watts and having a conventional power cord with a 3-prong plug. They can be plugged in almost anywhere. This may be convenient, but it is slow. Commercial drip brewers operate on 240 volts and consume anywhere from 3500 to as much as 7500 watts, depending on the model. They are designed to make large amounts of coffee very quickly. This is how it should be done. It should not take almost an hour to make 55 cups of coffee, but that is exactly what happens when using one of our larger percolators. A commercial drip machine brews coffee in one-fourth the time.

What if you underestimated how much coffee was needed for an important dinner at the church, and you are running out? No problem with a commercial drip machine. 36 cups in 9 minutes. Someone forgot to make the coffee for an event? Again, no problem with a commercial drip machine. Committee meetings? Make 24 cups of coffee in 6 minutes. It almost takes longer to walk to the kitchen and back than it does to brew the coffee. Staff meeting in need of a pick-me-up? 12 cups of perfectly brewed coffee in 3 minutes.

Coffee Containers: The use of old-fashioned glass coffee pots that sit on burners to keep them warm is no longer the way to go. You are limited to about 10-12 cups of coffee per pot, and the coffee starts to taste bad after only a few minutes on the burner. It's not unusual to see someone pour the last half-cup from an old pot into a new one. By the end of the day, there are still a few drops of charred coffee lingering from that first pot in the morning.

The best method is to brew the coffee directly into thermally insulated containers. These stainless steel-lined containers come in a variety of sizes and styles. In some cases, they are left in the brewer and coffee is dispensed into cups from a spout on the container. But often the containers are carried to the location where they are needed. Additional batches can be brewed into other containers as required. Some containers have a spout on the side, others have a push-pump device on the top for self-serve situations. The coffee is kept warm and fresh for as much as several hours. Many models have a sight gauge to show how much coffee is left.

Cleanliness: Keep the brewer and containers clean! Follow the directions. Perform the special cleaning procedures when appropriate. Since our church runs largely on volunteers, make sure that everyone involved knows what to do and when they are responsible for clean-up.

Whole Bean Sources

Note: There is important information regarding Equal Exchange, TransFair, "Fair Trade" concepts and Methodist Church policy later.

Grocery Stores in General: I checked local grocery stores to see what is offered in whole bean coffee, and how fresh it is. It is typically sold in 10-ounce bags, 12-ounce bags, 1-pound bags, 24-ounce bags and 2-pound bags. Even a particular brand of coffee may come in more than one size, sometimes in 10 and 12-ounce bags to add to the confusion. Some stores offer coffee in self-serve bulk dispensers.

Unfortunately, the suppliers of whole bean coffee in grocery stores don't mark their products with a roasting date. Most are marked with something like a "BEST IF USED BY:" date that can be as much as a *year* into the future. Some suppliers don't provide any date at all:

Jewel Food Store on Howard Street, researched July 1, 2007:

Brand	Date Labeling
Bulk Dispensers	No dates shown.
Folgers Gourmet	"Best By:" with dates about eleven months into the future.
Starbucks	"Best By:" with dates about six months into the future.
Eight O'Clock	"Best When Used By:" with dates about eleven months into the future.
PapaNicholas	"Best By:" with dates about six months into the future. A Batavia, Illinois roaster (more info later).

Whole Foods on Chicago Avenue, researched on June 23, 2007:

Brand	Date Labeling
Bulk Dispensers	"Freshly Filled On:" with dates no more than a few days old.
Jim's Organic	"Best By:" with dates almost a year into the future.
Allegro Coffee	"Best if Used By:" with dates about two months into the future.
365 Coffee	"Best if Used By:" with dates about two weeks into the future.
Metropolis Coffee	"Best By:" with dates about two months into the future. A Chicago roaster (more info later).
Equal Exchange	No date of any kind.
Wings of the Morning	"Best Sold By:" with dates about two weeks into the future.
Intelligentsia	Bar code sticker date is probably the actual roasting date, about two weeks old. A Chicago roaster.

Wild Oats on Chicago Avenue, researched on June 23, 2007:

Brand	Date Labeling
Bulk Dispensers	Labeling was not clear
Wild Oats/Green Mountain	"Guaranteed Fresh Until:" with dates about four months into the future.
Newman's Own	"Guaranteed Fresh Until:" with dates about three months into the future.
Green Mountain	"Guaranteed Fresh Until:" with dates about five months into the future.

Equal Exchange: I contacted our current supplier of pre-ground coffee, Equal Exchange, to find out how fresh their whole bean coffee is. I was told by Hope that the time from roasting to shipping is "averaging a month or less."

Whole Bean Suppliers in Evanston:

Casteel Coffee
2924 Central St.
Evanston, IL 60201
847-424-9999
www.casteelcoffee.com

Quoting from the Casteel site: "In order to ensure freshness, we roast our coffees six days a week in small batches and track our roast dates. Consequently, we rarely sell beans more than three days old." They offer free delivery locally on a daily basis using their own delivery personnel. Many of Casteel's coffees are Fair Trade certified.

I've been buying my coffee beans from Casteel Coffee for many years. I first ran into Lee Casteel when he was renting space in the front of a store on Davis Street in 1987. He had a large stainless steel roasting machine in the window. He offered many varieties of "green" beans and roasted them while you waited. The machine was temperamental, and the neighborhood smelled like burned coffee beans, but it was awesome to drive home with the aroma of warm, freshly roasted beans. The resulting coffee was wonderful.

Peet's Coffee & Tea
1622 Chicago Ave.
Evanston, IL 60201
847-864-8413
www.peets.com

Peet's began in Berkeley, California in 1966. Their Evanston store is the first outside the Berkeley area. At the Evanston store you can buy whole-bean coffee that is guaranteed to be no more than ten days old from the roaster. Peet's coffee is roasted on the west coast twice a week, flown into the area and delivered on Mondays and Thursdays. For the freshest whole bean coffee, buy it on a Tuesday or Friday and ask for the freshest variety. Whole bean coffee can be purchased on-line from Peet's home facility in California. The beans are custom roasted in the morning and shipped that afternoon. Peet's Fair Trade Blend is a certified Fair Trade coffee. More about their Fair Trade policies later. If nothing else, go to Peet's if you run out of coffee at the last minute. They are right around the corner from the church.

Peet's offers a "Peet's to Go" container of hot coffee that serves 12-15 people for $15.00. Advance notice is usually required, but they may be able to brew it for you on-demand. According to Mallory at Peet's Evanston store, they have a Community Outreach program where they can provide coffee for community events for free. Contact Susan at Peet's for details (847-864-8413).

The Italian Coffee Bar
1549 Sherman Ave.
Evanston, IL 60201
847-328-7164
www.theitaliancoffeebar.com

A couple of years ago Pam Kendall purchased containers of brewed coffee from The Italian Coffee bar for some of the Sunday morning programs as a way of bypassing the coffee situation at the church. TICB delivered two containers of coffee, one decaf and one regular, and related supplies. A container of coffee is $12 and serves 10-12 people. TICB also sells whole-bean coffee in bulk quantities. Their coffee beans are delivered to them weekly. Some coffees are Fair Trade certified. There is another Evanston location at 940 Church Street and one in Highland Park.

Starbucks (nine locations in Evanston): Whole bean coffee is available at Starbucks. It is delivered to them every Thursday. Some of their coffees are Fair Trade certified. They have a program of socially responsible coffee buying guidelines called *C.A.F.É. Practices* (**C**offee **A**nd **F**armer **É**quity Practices) that addresses a variety of social issues. More on that subject later.

Other Local Area Suppliers:

Metropolis Coffee Company
1039 W. Granville Ave.
Chicago, IL 60660
773-764-0400
www.metropoliscoffee.com

Metropolis is recommended by Pam Kendall. I met with the owner, Tony Dreyfuss. He gave me a tour of their roasting, packing and shipping areas. They roast and ship their whole bean orders the same day. Tony also gave me 1-pound samples of five varieties of whole bean coffee, four samples of tea and a Metropolis T-shirt. Metropolis has won a number of awards for their coffee. According to their web site, they place "an emphasis on OCIA certified organics and TransFair USA certified fair-trade beans." They perform a lot of "cupping" to test batches of beans to determine the best way to roast them.

Metropolis also sells grinders and brewing equipment by Bunn and Fetco. Prices and terms are included in a supplement to this report. Tony recommends Fetco equipment for brewing, believing that it brews a better cup of coffee than Bunn. Metropolis delivers locally every Thursday using their own personnel.

Intelligentsia Roasting Works
3123 N. Broadway St.
Chicago, IL 60657
773-348-8058
http://www.intelligentsiacoffee.com

The Coffee and Tea Exchange
3311 N. Broadway St.
Chicago, IL 60657
773-528-2241
http://www.coffeeandtea.com

Chicago Coffee Roastery Inc.
11880 Smith Court
Huntley IL 60142
847-669-1156
http://www.chicagocoffee.com

Coffee Masters - Ingleside
P.O. Box 1507
Woodstock, IL 60098
800-334-6485
http://www.coffeemasters.com

Hayes Coffees
1010 North Blvd.
Oak Park, IL 60301
708-524-1914
http://www.hayescoffee.com

Coffeemaria
525 W. Lake Street, Unit 9
Addison IL 60101
630-768-2043
http://www.coffeemaria.com

PapaNicholas Coffee
1141 N. Raddant Rd.
Batavia, IL 60510
630-406-1100
www.papanicholas.com

There are many other suppliers of freshly roasted beans around the country and on the Internet. Many of them claim to roast and ship their beans the same day. Many offer at least some items that are Fair Trade certified.

Equal Exchange, TransFair, Fair Trade, C.A.F.É., etc.

Various organizations were established over the last 20+ years to help coffee farmers to earn a living wage, to protect the environment and to achieve other socially responsible goals. A great deal of background information is available at Global Exchange. Here are summaries of the principles and goals of some of the organizations and suppliers:

Equal Exchange: In 1986 Equal Exchange was founded to achieve "Fairness to farmers". Here are their founding principles, quoted from the Story page on their web site:

- *A social change organization that would help farmers and their families gain more control over their economic futures.*
- *A group that would educate consumers about trade issues affecting farmers.*
- *A provider of high-quality foods that would nourish the body and the soul.*
- *A company that would be controlled by the people who did the actual work.*
- *A community of dedicated individuals who believed that honesty, respect, and mutual benefit are integral to any worthwhile endeavor.*

They state: "as of May 1, 2006 twenty-six million pounds of coffee have been imported over twenty years, purchased by Equal Exchange direct from small farmer co-operatives."

TransFair USA: TransFair USA is a third-party certifier of Fair Trade products. According to the About Us page on their web site, they are the only third-party certifier in the USA. Their mission statement: "TransFair USA enables sustainable development and community empowerment by cultivating a more equitable global trade model that benefits farmers, workers, consumers, industry and the earth. We achieve our mission by certifying and promoting Fair Trade products." They further state: "In the past six years, TransFair has leveraged limited resources to certify 74.2 million pounds of Fair Trade coffee."

Starbucks C.A.F.É. (**C**offee **A**nd **F**armer **É**quity Practices): Starbucks states "In conjunction with Conservation International, Starbucks developed socially responsible coffee buying guidelines called C.A.F.É. Practices (Coffee and Farmer Equity Practices) in 2001. These guidelines are designed to help us work with coffee farmers to ensure high-quality coffee and promote equitable relationships with farmers, workers and communities, as well as protect the environment." Details are available on their Sourcing Coffee web page. It is not clear how much of Starbucks coffee is Fair Trade certified or meets similar standards.

Peet's Coffee & Tea: According to the "FAQ" section on their web site: "Peet's Fair Trade Blend is a certified fair trade coffee. Not all of our growers are eligible for Fair Trade certification; in all cases, Peet's strives to maintain long-term, sustainable partnerships with our growers. Premium coffees such as the ones we use command prices well above the Fair Trade minimums, and we actively work with partners such as Coffee Kids and Global Education Partnership to improve the quality of life in coffee-growing communities."

From their Fair Trade Blend page: "Six hundred families, none farming more than a few acres, operate a mill we know well in Tarrazú, one of the best places in Costa Rica to grow coffee, and certainly the steepest. When this cooperative, which was producing to our standards more than a decade ago, became a Fair Trade affiliate, we made this clear-toned, lemony coffee the heart of the blend whose soul is assistance for small growers. We also purchase Fair Trade certified coffee from co-ops in Nicaragua and Guatemala.

In addition to the price designed by Fair Trade to deliver a livable wage to its members, Peet's pays a premium to all of our suppliers for producing coffees of superior flavor, as well as ten cents from every pound to the non-profit group TransFair USA for promoting Fair Trade."

PapaNicholas Coffee: PapaNicholas is a coffee roaster from Batavia, Illinois. They have made proposals to First Church, offering various incentives in exchange for exclusive use of their coffee. Details are described in a supplement to this report. Here is their policy on Fair Trade coffee:

"Does Papanicholas use Fair Trade Certified coffees?
The Fair Trade issue is relatively complex, in that many parties are involved, and there continue to be many differing perspectives as to the organizations value throughout the entire supply chain. The Papanicholas Coffee perspective is as follows. First, the average price that we pay for our coffee is well above the prescribed "fair trade" price. Second, we have developed very strict standards related to quality control and testing for the green coffee that we purchase. Subscribing to Fair Trade would potentially limit our ability to secure the finest coffees from around the world, by restricting our purchases to Fair Trade authorized growers. Lastly, we believe strongly in a solid economic model of supply and demand. Over the past year, our average price per pound has increased because the supply of quality (as defined by Papanicholas) green coffee is tightening. However, there is a large supply of inferior quality coffee on the market, which is priced at very low levels.

Our mission as a company is for everyone to enjoy a great cup of coffee at a great price. Fair Trade Certified coffees are potentially an obstacle to this mission, because these coffees could force us to compromise on quality. There are also additional costs that eventually get passed on, which would prevent our organization from fulfilling its value commitment to the consumer."

Methodist Church Policy on Fair Trade Coffee

The Northern Illinois Conference (NIC) Board of Church and Society (CBCS) urges local churches to take the Fair Trade Pledge sponsored by the Chicago Religious Leadership Network on Latin America (CRLN) and the United Methodist Committee on Relief (UMCOR). Under the heading of **"UMCOR Coffee Project: Good Coffee for a Good Cause"**, the referenced web site has the following statement: "As Christians we can address a consumer dilemma by buying coffee that is fairly traded. United Methodist congregations that participate are supporting practices which help farmers in Latin America, Africa and Asia earn a fairer share of income, obtain access to credit and technical support, and gain a trading partner they can trust, a fair trade organization called Equal Exchange."

There is also a policy statement from the site for the General Board of Discipleship of The United Methodist Church entitled **"UNITED METHODIST CHURCH USE OF FAIR TRADE COFFEE"** that concludes: "THEREFORE, be it resolved that, in seeking an authentic Christian response to the plight of developing world small individual coffee farmers, their families, and their communities, the General Conference of The United Methodist Church urges all agencies of the church, local congregations and their affiliated organizations that use coffee to purchase coffee for corporate and personal use through the fair trade partner, Equal Exchange or through another fair trade organization."

My Personal Comments on Fair Trade Coffee

My main goal in writing this report was to determine what we could do to make great coffee. It starts with freshly roasted coffee beans. I was disappointed to learn that at Equal Exchange there is a time lag between roasting and shipping that is "averaging a month or less". This is unacceptable in view of the fact that there are many other sources of whole bean coffee that routinely roast and ship their orders the same day, or within a few days at most. Many of those suppliers offer at least some varieties of coffee that are Fair Trade certified, or purchased following policies that meet or exceed those of Equal Exchange and TransFair.

The time lag at Equal Exchange is puzzling when you consider that their story is one of boldness, daring and vision, yet they drop the ball when it comes to the important step of roasting and shipping in a timely and competitive manner. I challenge Equal Exchange to modernize their operations and become competitive. Idealism is great. But sooner or later, you have to deliver a competitive product.

We may be able to meet the spirit of the Fair Trade Pledge, and get fresher coffee, buying from suppliers other than Equal Exchange. Perhaps the best coffee for our needs will be Fair Trade certified coffee from other suppliers. But the certification requirements of TransFair can be limiting. We may need to find coffee that is not Fair Trade certified, but is from suppliers that independently comply with, or exceed, the basic goals of Equal Exchange and TransFair. Coffee does not need to be officially certified by anybody to accomplish such goals.

What if we choose the best Equal Exchange or Fair Trade certified coffee that we can find, and we still have many church members commenting "We need better coffee!"? We won't be helping the coffee farmers much if nobody drinks the coffee. It may even be counterproductive.

We should perform taste-tests of many different coffees, from Equal Exchange and others, to determine what works best for us. We should take into account the usual factors such as taste, quality, cost, convenience, freshness and selection, as well as the important social and moral issues addressed by Equal Exchange, TransFair and Methodist Church policy.

Equipment Recommendations

I have studied the commercial grinding and brewing equipment of the major manufacturers, including Bunn, Fetco, Newco, Grindmaster and Curtis. I believe that Bunn offers the best combination of features and performance. Bunn has a complete system that will enable us to quickly and easily make perfectly brewed coffee in three batch sizes to accommodate almost all church events. On the other hand, I've heard from a couple of people that Fetco brewers do a better job of brewing coffee. More on that later.

Grinders:

Bunn makes two models of commercial grinders that are ideal for our application. They are *microprocessor controlled, programmable* and *very simple to use*, essentially one-button operation. They are part of a system based on "Digital Brewer Control" (DBC) that links the grinder and brewer through wireless digital communication to assure a perfectly brewed batch of coffee. The grinders have two storage compartments for coffee beans, typically one for regular beans, the other for decaf. There are three push-buttons for each compartment, providing three programmable batch sizes per compartment. The user chooses the left or right compartment, then which batch size to grind from that compartment, then pushes the appropriate button. During the grinding process the grinder communicates via a wireless link with a microchip in the "Smart Funnel®" coffee basket to tell it the name of the coffee being ground and the size of the batch to be brewed. When the Smart Funnel® is placed in a ThermoFresh® BrewWISE® DBC brewer, it communicates with it via a wireless link and tells it the name of the coffee and batch size. Based on that information, the brewer adjusts all brewing parameters (*brew volume, bypass percentage, pre-infusion time, pulse brew time* and *drip out time)* for a precisely brewed batch of coffee.

The first grinder is the model G9-2T DBC, the second is the model MHG (Multi Hopper Grinder). The storage compartments of the G9-2T DBC grinder are built into the chassis. The compartments of the MHG grinder are removable "Smart Hopper™" containers that can easily be changed to grind different varieties of beans. Each hopper contains a microchip that can be programmed for the variety of coffee beans that it contains. The information is passed via a wireless link to the MHG grinder, then to the Smart Funnel®, then to the brewer. There are even recipe cards that can be programmed and used for instant updating of the programming of grinders and brewers simply by passing the card under the pick-up sensor of each device.

The three push-buttons for each bean compartment represent different brewing or batch "profiles". They can be programmed for the following parameters:

1. **Coffee name** (from a list of 28 varieties).
2. **Quantity of coffee to be ground**, based on how many seconds a slide gate is open to allow beans to drop from the bean compartment to the grinding chamber for grinding (adjustable from 0.4 to 99.9 seconds).
3. **Chamber clean-out time** based on how many seconds the grinding mechanism continues to grind after the slide gate is closed to finish grinding the beans.

Each hopper holds up to 6 pounds of coffee. A locking lid is available to prevent tampering. There is an LCD alphanumeric display in the MHG grinder that shows coffee names and diagnostics.

These grinders are fast. They can grind a pound of coffee in about 25 seconds. A 36-cup batch of coffee requires about 11-12 ounces of grounds, which takes about 17 seconds to grind.

Best Internet price for the G9-2T DBC: $988 (Sam's Club)
Best Internet price for the MHG: $1102

Additional MHG hoppers: $75
Hopper display rack: $52

Brewers:

The best brewer for our application is the Bunn ThermoFresh® BrewWISE® DBC in either a single or dual model. Just as with the Bunn grinders, the brewers are *microprocessor controlled, programmable* and *very simple to use*, essentially one-button operation. The brewer can make any of three batch sizes at the push of a button. The three standard batch sizes are:

Batch Size	Gallons	Ounces	Cups (5.5 oz.)
Small	0.5	64	12
Medium	1.0	128	24
Large	1.5	192	36

The following parameters can be programmed for each batch size:

1. **Brew volume** (10 to 400 oz.).
2. **Bypass percentage** (Some of the hot water bypasses the grounds for special situations).
3. **Pre-infusion time** (wetting of the grounds followed by a pause prior to the extraction/brewing phase).
4. **Pulse brew time** (the hot water turns on and off repeatedly at programmed intervals during the brewing cycle if desired).
5. **Drip out time** (time allowed for hot water to finish passing through the grounds after the brewing period has finished).

The ability to brew three batch sizes makes it possible to cover almost every type of event that is held at First Church. The ability to reprogram the brewer, either directly or with recipe cards, adds further flexibility.

Brewing temperature can also be programmed. Ideally these brewers are used with one of the Bunn grinders mentioned earlier for a complete system approach.

The brewers are fast, brewing 4.4 cups per minute for the single unit and 7.3 cups per minute when both sides of the dual unit are used. Two single units would brew 8.8 cups per minute and would ensure that if one brewer broke down, the other would still be available.

The largest standard ThermoFresh® thermally insulated brewing container is 1.5 gallons (192 ounces), but the brewers can be programmed for batches up to 400 ounces if larger containers are used without a base. Zojirushi makes 2-gallon containers (256 oz.) that can hold 48 cups of coffee (5.5 oz. cups). Note that the standard approach is to use multiple 1.5 gallon containers when more than 36 cups of coffee are required. It is easier to lift the 1.5 gallon containers, and it may be more flexible to have multiple smaller containers than one larger one. It would also make it possible to more accurately match the amount of coffee brewed to the amount consumed, resulting in less waste.

The high brewing speed, precision and simplicity of the brewers makes it possible to brew a perfect batch of coffee quickly and easily, even at the last minute.

There is a hot water faucet for tea and other hot beverages. Using this faucet does not affect the brew rates.

Best Internet price for the single unit: $1210
Best Internet price for the dual unit: $1675

ThermoFresh® Servers:

A critical part of this brewing system is the stainless steel lined ThermoFresh® vacuum insulated servers. They are equipped with a brew-through lid so the coffee is brewed directly into the container. The vacuum insulation keeps the coffee fresh and warm for hours without the need for an electric warmer. This is a major improvement compared to traditional coffee preparation where open glass decanters are used and they sit on burners to keep them warm. Glass decanters only hold about 10-12 cups of coffee, and the coffee deteriorates quickly when sitting in an open decanter on a burner.

A server can be left on its base in the brewer, or it can be carried along with its base to wherever it is needed for convenient coffee dispensing via the fast-flow faucet. A sight gauge provides a clear indication of the coffee level. Servers are available in 1.0-gallon and 1.5-gallon sizes in a black or stainless steel finish. The stainless steel finish is generally cheaper. An orange serving handle is available to indicate decaf coffee. Prices range from $190-$230.

Water Filter:

The Bunn EQHP-10 water filter is the best choice for our application. Each filter cartridge is rated for 10,000 gallons of water. The filter improves the taste of the water by reducing the sediment, chlorine taste and odor. The brewing equipment is protected by the reduction of sediment particles that can clog the sprayhead and interfere with water tank sensors. The replacement cartridge is the EQHP-10CRTG.

Price for the EQHP-10 ranges from $66.00 to $100.00.

Programming:

The grinders and brewers can be programmed using the buttons on their front panels. There is usually a hidden button or two to aid in the process. Another approach is to use the BrewWISE™ Recipe Writer and programmable Recipe Cards. A programmed recipe card can be passed under the sensor of a grinder or brewer to quickly change its programming. Batch sizes, strength of brew and other parameters can easily be changed, and changed back.

The hoppers of the MHG grinder are programmed by placing them on top of the Recipe Writer. If necessary, even the Smart Funnels can be programmed by placing them on top of the Recipe Writer.

The Recipe Writer box connects to a standard PC through a USB port. Comprehensive software is included. The Recipe writer is about $275. Recipe cards are about $13.

Other Thermal Containers

For smaller batches of coffee, or for the ability to pour coffee at the table, the stainless steel lined thermal dispensers made by Zojirushi are available. These containers are designed so that they can be placed directly in the Bunn brewers so the coffee is brewed directly into them. The tops of the containers can be hinged out of the way or removed for direct brewing. Some of these items are also sold under the name of Newtech. Even then, Newtech sometimes sells them under the name of Curtis. In fact, the SGC-40 (1.0 gal.), SGC-60 (1.5 gal.) and SGC-80 (2.0 gal.) containers by Zojirushi (not shown) are only available through Bunn and other brewing equipment manufacturers. Many other models are available by Zojirushi and other manufacturers such as Luxus.

Newtech/Curtis TLXP-19 (64 oz.): $34

Zojirushi SH-FB19 (64 oz.): $40

Zojirushi SRAG30 (101 oz.): $65

Newtech VY-EE25 (85 oz.): $95

Alternative Approaches

The Bunn system approach is simple, essentially one-button operation of the grinder and the brewer. Parameters can be quickly reprogrammed with recipe cards. A slightly more complicated approach, but possibly more flexible, is to weigh or measure the amount of coffee to be ground, then put it in an empty grinder and grind it. This would allow the user to modify the proportions of a particular batch without any reprogramming of the grinder and/or brewer. Instead, just use more or less coffee as desired. This would allow for the purchase of a less expensive grinder that does not have batch control. It would be more complicated because accurate measuring or weighing is required, along with the measuring or weighing equipment.

Some people say that Fetco equipment is better at brewing than Bunn. Fetco has grinders and brewers that are similar to the Bunn units that I recommend, but they are not reprogrammable with recipe cards, and they do not communicate with each other. They operate independently. The GR 2.3 grinder offers two compartments with removable hoppers and three batch sizes per compartment at the push of a button. Batch sizes are programmable through hidden buttons. According to the specifications, this grinder is much slower than the Bunn grinders (18 ounces per minute vs. 16 ounces in 25 seconds). Internet price around $1150.

The CBS-2051e brewer offers three batch sizes at the push of a button. It can be programmed for the same general parameters as the Bunn ThermoFresh® DBC brewers. A dual model is available, the CBS-2052e. Brewing rates are faster than the Bunn models, 6.4 cups per minute vs. 4.4 for the single model.

Best Internet price, CBS-2051e: $1360
Best Internet price, CBS-2052e: $1960

Acquisition, Installation and Maintenance of Equipment

There are several approaches that can be taken with regard to the acquisition, installation and maintenance of the grinding and brewing equipment. There are authorized dealers for Bunn and Fetco. There are coffee roasters and suppliers that are willing to provide reduced cost or other accommodations in exchange for exclusive use of their coffee. Installation and maintenance may also be included in such arrangements. Equipment is also available from several Internet sources. These approaches are discussed in a supplement to this report.

Additional Things to Do

There are several things that need to be done to finish the coffee upgrade at First Church:

1. Install a 6-foot long base cabinet and counter top on the north wall in place of the wire shelves. The new cabinet should have drawers, not shelves, to provide much easier access to items at the rear of the cabinet. Cabinets are available in a similar style and finish as the existing cabinets, if that is desired.
2. Install dedicated 120V and 240V electrical circuits to provide power to the equipment.
3. Install a water line for the brewing equipment.
4. Provide instructions, photographs, etc., for proper operation and cleaning of equipment.
5. Find a new place for the stools.

How about a cup of coffee?

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