

# LIGHTEN UP



## CREATE THE PERFECT LIGHT ROAST

BY WILLEM J. BOOT

PHOTOS BY KENT HANSON

IMAGINE THAT consumers and specialty coffee aficionados around North America suddenly refused to purchase dark, over-roasted coffee beans and began to demand that their local coffeehouse offer a lightly-roasted, vibrant tasting, easy-to-digest coffee. Would you be able to handle the challenge of creating the perfect light roast?

Of course, this is a hypothetical question. Dark-roasted beans enjoy such massive popularity among coffee consumers that it is hard to imagine coffee drinkers spontaneously protesting against the trend. For some reason, roasting dark seems to keep coffeehouses everywhere, from the boardwalk beach cafés in San Diego to the rainy streets of Maine, in its tight grip.

*continued on page 32*



*El Salvador Peaberry Bean*

Just ask small- to medium-sized roasters about the “why’s” of their dark roasting style, and they will simply answer “because my customers want it,” usually followed by an explanation that lighter-roasted beans offer a more pronounced acidity, which is not preferred by most of today’s coffee consumers.

That said, let’s pretend for a moment that consumers suddenly started calling for a lighter roast. Would roasters be ready to handle the challenge? Frankly, I don’t know. With the grand popularity of dark-roasted coffees, the roasting community seems to have lost some of its finesse. Because too many roasting companies simply copy the roasting styles of some of the big players, there seems to be only a handful of companies that dare to roast any of their beans lighter than Agtron 55 (M-Basic), considered in some European countries to be a very normal roasting color for drip filter products. In Northern Italy, many roasting companies apply the same degree to roasting espresso beans, just up to the very first start of the second crack.

So what’s the big deal about roasting dark? Why should we even have to consider a light roast when the average consumer generally prefers the sweetness and potentially creamy finish of a well-crafted dark roast? Why not stick to the play-it-safe scenario and try to do what the average customer wants?

The answer is not simple. First of all, I believe that most dark-roasted coffees lack brightness, sweetness and often have cardboard, paper-like flavors, especially after the brewed coffee has been kept for more than 10 minutes. Secondly, I believe that

IT'S  
**COOLER**  
 WITH A  
**JAVA JACKET**

Most coffee sleeves don't provide the superior insulation of the Java Jacket. Java Jackets insulate your customers from their hot or cold to-go beverages and provide a more grippable surface. They're made from recycled paper, and can be reused and recycled themselves.

**JavaJACKET**

1.800.208.4128 Fax: 503.281.6462 info@JavaJacket.com www.JavaJacket.com IT'S ALL ABOUT HAPPY CUSTOMERS.

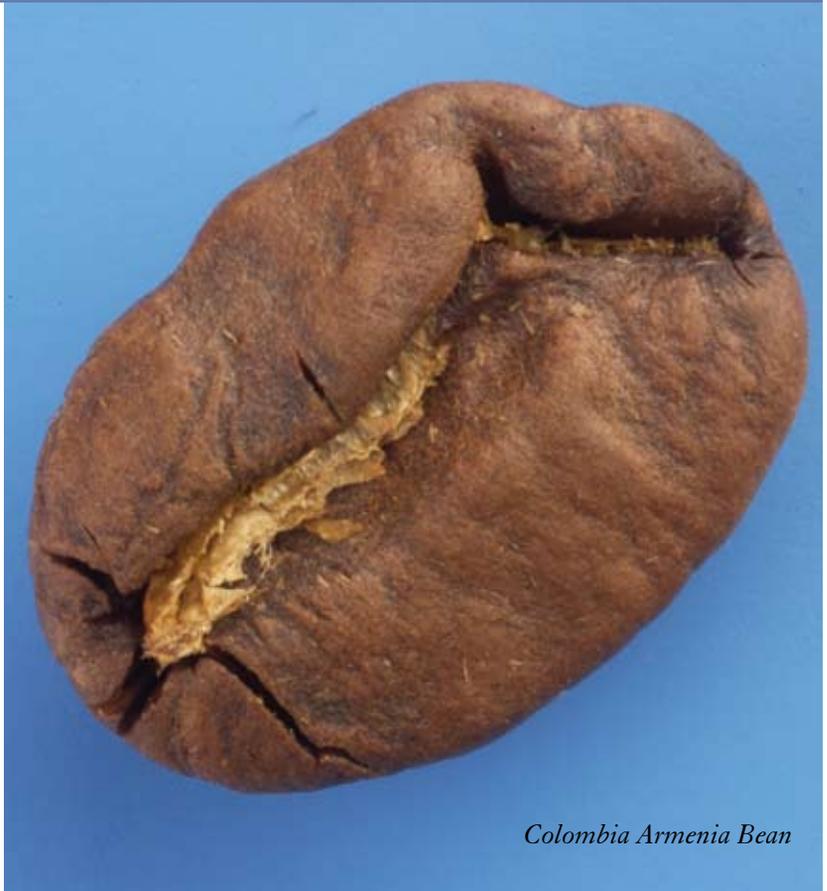
FREE INFO #127

lighter roast colors, such as those shown in the pictures of the El Salvador peaberry bean and the Colombia Armenia bean (both Agtron 58 to 60), generally offer a much more complex cup profile than the same coffees roasted to a darker degree, like Agtron 40 or lower. Additionally, there are some other advantages of roasting light, like a longer shelf life, less emissions during roasting and a lower risk of roaster fires.

However, roasting coffee as light as the pictures indicate is not easy; the roaster needs to follow certain steps to ensure that the flavor profile of the coffee is sufficiently developed, without creating sour, astringent or malty notes, which can potentially be predominant with under-roasted coffee beans. The solution to developing proper profiles for lighter-roasted coffee beans is to investigate with each coffee bean type the appropriate time-temperature pattern. In the case of the Nicaragua coffee beans shown on the following pages, we applied a roasting style with moderate heat supply throughout the roast, which resulted in a gradual increase of bean temperature.

So, what's the secret to creating perfect-tasting light roasts? Are you expecting me to reveal a long-hidden family secret that will propel your business straight into the ranks of light-roast fame and fortune?

*continued on page 34*



*Colombia Armenia Bean*

**WHAT HAPPENS TO YOUR BEANS  
ONCE THEY ARE DELIVERED?**

*You source the finest beans,  
and roast them to perfection ...  
only with proper ongoing training  
will YOUR coffee taste the way  
it was intended!*

**YOUR #1 SOURCE FOR:**

- FULL SERVICE CONSULTING
- VIDEO & DVD TRAINING
- START UP MATERIALS
- ROASTING CONSULTING
- BARISTA AND COFFEE BUSINESS SCHOOL

**WWW.ESPRESSO101.COM**  
**WWW.SPECIALTYCOFFEECONSULTING.COM**

**800-655-3955**

**Bellissimo**  
**COFFEE INFOGROUP**

FREE INFO #105

**TRIPLE-SEAL ESTATE COFFEE**

USDA ORGANIC, FSC CERTIFIED, COFFEE BEST PRACTICES CERTIFIED

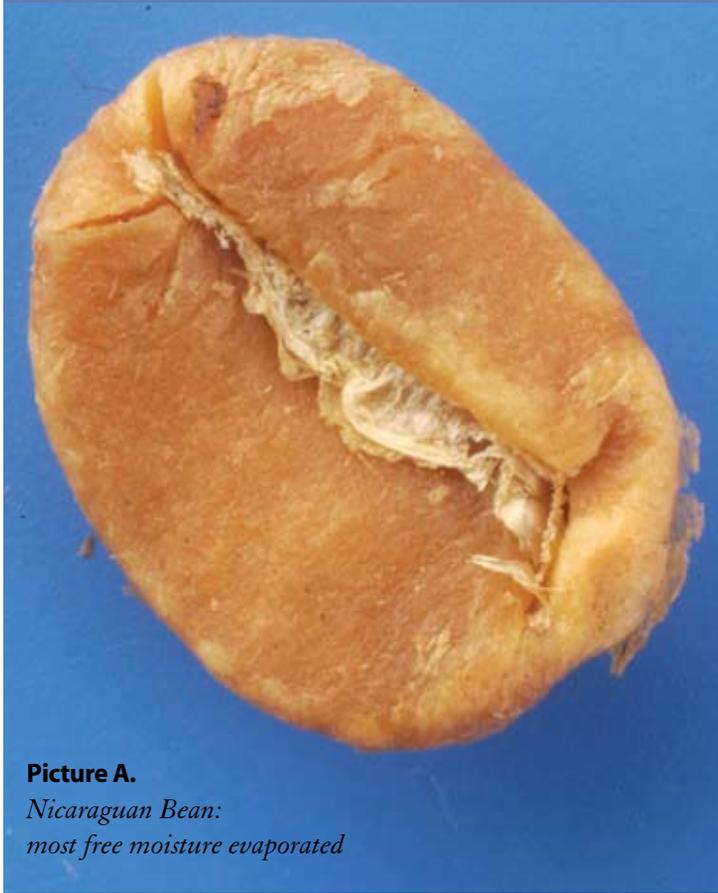
*Mesa de los Santos*

THE SPECIALTY COLOMBIAN COFFEE

ORDERS:

USA: Royal Coffee San Francisco: (510) 652 4256.  
Royal Coffee New York: (718) 815 5600  
UK: Ridge & Bremner: London +44(0) 20 7403 8787  
JAPAN: Kanematsu: Tokyo 81-3-5440-9555  
Visit the farm: [www.cafemesadelossantos.com](http://www.cafemesadelossantos.com)  
e-mail: [telmo@cafemesadelossantos.com](mailto:telmo@cafemesadelossantos.com)  
Tel: (571) 340 1528 - Fax: (571) 288 7575 - Colombia

FREE INFO #130



**Picture A.**  
*Nicaraguan Bean:  
 most free moisture evaporated*

Hardly, but that's okay because you don't need an ancient roasting secret. Roasting light can be as easy as preparing a medium-rare steak. Or as cooking pasta al dente, which gives the pasta a pleasant bite, soft mouthfeel and makes your guest grateful at the same time.

Let's assume we have just purchased some bags of Nicaraguan coffee in the most recent Cup of Excellence auction. Furthermore, we have decided to roast the Nicaraguan beans light enough so that the roast with its inevitable caramelization will not mask the coffee's flavor profile. By following a light roasting protocol, we will attempt to preserve the medium-toned acidity and apricot-like aftertaste of these precious Nicaraguan beans. At the same time, we must take into account the semi-hard bean structure of this coffee, which requires moderate energy supply during a major part of the roast cycle.

### Seeing the Light

Are you ready? Let's start a light roast. Make sure that the roasting machine is fully preheated for at least 10 to 15 minutes. Next, we will determine our charging temperature, which should be not too high for this coffee, otherwise these medium-hard beans might tip or scorch. Upon charging, little seems to happen for at least two minutes. However, under the green surface of the coffee bean, a major chemical

★ **ATLAS** ★  
 COFFEE IMPORTERS  
*Specialty green coffees from all origins*

www.atlascoffee.com  
 Seattle, Washington U.S.A.  
 T. (800) 701-5211 F. (206) 652-4881

FREE INFO #103

transformation is occurring—the beans are literally soaking up the heat passing through the roasting drum. The free moisture that is contained in the cell structure of the beans is heating up and will eventually start boiling and evaporating. Now, look at picture A. The roast process is 3–4 minutes underway, and the color of the beans will slowly start turning a golden brown. If you pulled a small sample from the roasting drum with the trier, you would smell a floral, sweet, almost fresh bread-like aroma. From this moment on, it is important to watch the increase in bean temperature. By the sixth or seventh minute, the coffee develops a more brownish color and the beans start expanding. A hint of coffee aroma starts to emerge from the coffee and the first crack gets closer. As picture B. shows, the color approximates hazelnut brown and the surface of the beans is quite smooth.

These Nicaraguan coffee beans can be classified as semi-hard beans, grown at an elevation of approximately 1,250 meters, which causes the beans to look quite even at this stage in the roast. Higher-grown beans—1,400 meters and up—will have a different appearance in this stage, with a rough surface and an uneven color development.

*continued on page 36*



**Picture B.**

*Nicaraguan Bean:  
one minute before first crack*

**IMPRESS YOUR CUSTOMERS  
with customized logo cups!**

Espresso, cappuccino and  
latté porcelain available  
in 22 different designs,  
gift sets, or customized  
with your logo.

**THE  
CAPPUCCINO  
COMPANY**  
Specialty Restaurant Equipment

800.428.7672  
[www.cappuccinocompany.net](http://www.cappuccinocompany.net)

FREE INFO #111

redefining coffee from origin to cup

Toll Free 800-285-1298  
Phone 815-639-9298

**BD IMPORTS**  
[www.bdimports.com](http://www.bdimports.com)

FREE INFO #104

**NORTH ATLANTIC  
Specialty Bag**

AT NORTH ATLANTIC,  
OUR SPECIALTY IS  
CUSTOM PRINTED BAGS

- Custom Printed Bags
- Stock Pre-made Bags
- Rollstock
- Packaging Equipment

“OTHERS LIMITATIONS  
ARE OUR OPPORTUNITIES”

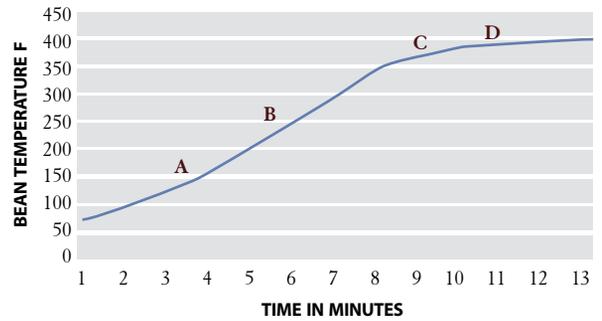
ELLEN DONNAGAN, SALES EXECUTIVE  
888-484-7682  
717-354-2250  
215-689-3770 Fax  
E-mail: [ellen235@juno.com](mailto:ellen235@juno.com)

FREE INFO #135



**Picture C.**  
Nicaraguan Bean:  
right after first crack

**ROASTING CURVE FOR LIGHT ROASTS**



As the roasting graph indicates (the letters on the graph correspond to the pictures), the roastmaster has to roast prudently to ensure a gradual increase in bean temperature. The best way to accomplish this is by lowering the heat supply to such a degree that the beans will continue roasting gradually and slowly, which is essential for light roasting styles. At the start of the first crack, heat inside the coffee beans becomes exothermic, which causes them to generate heat. Because roasting too fast can produce sour, astringent and malty roasting taints, the roastmaster should lower the heat supply on time to stay in control of the process.

When the first crack starts, listen to the speed of the cracks. The faster you can hear one crack after another, the higher the bean temperature is at this stage. If you feel that it's going too

Plastic Parameters Presents

# Bean Scenes

Series 900  
Bins

US Patent # 6435381  
Cdn Patent Pending

Whole bean and brewed coffee vending systems and accessories

**PLASTIC PARAMETERS INC.**

7330 Victoria Park Avenue, Unit B,  
Markham, ON Canada L3R 1J1  
Tel: (905) 944-0805 • Fax: (905) 944-0990  
Tollfree: 1-877-594-0805  
E-mail: plasticparameters@bellnet.ca

**Website: www.plasticparameters.com**

FREE INFO #140

# Smoking Burns?

Bland beans? Economical solutions for your old, smoking, unwieldy Jabez-Burns® roaster.

**EQUIPMENT, ENGINEERING, and CONTROL SYSTEMS.**

[kevin@praxisinc.biz](mailto:kevin@praxisinc.biz)

**PRAXIS INTERNATIONAL INC.**  
Burns & Jabez-Burns are copyrighted and trademarked by Burns Roasters.

FREE INFO #141

fast, reduce heat supply; if it's going too slow, increase heat supply gradually. Picture C. shows the color of the beans immediately after the first crack (9–10 minutes roasting), and picture D. displays the color about one minute later. As we can see, there is a marginal difference in color between stage C and D. This is exactly what we are trying to accomplish in this light roasting style; by roasting prudently, we realize a gradual development of the coffee's flavor profile without unnecessarily stalling the process. After stage D, it is up to the roaster to decide how much time to prolong the roasting process; fundamentally and literally, this is a matter of taste. With a roasting color of Agtron 58 to 60, the Nicaraguan coffee described here tasted delightfully complex, with a subtle medium-toned acidity and—as I hoped for—a delicious apricot-like aftertaste.

Hopefully, these tips can inspire roasters throughout the world to use light roasts as a tool to unveil the flavor profile rather than to mask it.



*Willem J. Boot, of Boot Coffee Consulting & Training, specializes in consulting and training programs for coffee companies. He can be reached at 415.380.1999 or by sending an e-mail to: wboot@bootcoffee.com*



**Picture D.**  
Nicaraguan Bean:  
one minute after first crack

**The Art of Coffee**  
It's more than just a pot to us

**Make it a masterpiece.**  
Paint an image for your customers by turning your thermal servers into pouring advertisements.

Let custom designed pumpSkins promote your business 24 hours a day.

Ask about our other products to complement your coffee display.

Tel (253) 564-4600  
Fax (253) 564-1249  
www.pumpskins.com

**pumpSkins**  
RESURFACING SYSTEMS

FREE INFO #143

**REMANUFACTURED COMMERCIAL BEVERAGE EQUIPMENT!**

WHY WOULD YOU EVER PURCHASE OVER-PRICED NEW WHEN YOU CAN CHOOSE REBUILT WITH A FULL WARRANTY (AT A FRACTION OF THE COST)?  
OR TRADE IN YOUR OLD EQUIPMENT FOR EQUIPMENT YOU NEED!

**BEST BEVERAGE EQUIPMENT SUPPLIERS, INC.**

WWW.BESTBEVERAGE.NET  
888-834-4501

**WE SAVE YOU \$\$ WITH:**

- \*EQUIPMENT PURCHASES
- \*LIQUIDATING YOUR OLD EQUIPMENT
- \*OEM REPLACEMENT PARTS
- \*CONTRACT REBUILD
- \*ON SITE SERVICE

IN A GROWING # OF U.S. LOCATIONS

CONVERSIONS OF OLD BREWERS TO "HOT" USE-ABLE ITEMS

OTHER CONVERSIONS AVAILABLE ALSO!

FREE INFO #106