

Spectrophotometry has become a staple technology application in the coffee industry over the past several decades. New trends in individualized portion pack coffee products have increased the demand for higher quality and consistency in coffee products and manufacturers are looking for ways to streamline the process to keep up with the demand. Fast and reliable color technology has increased production rates without cutting corners on quality. With advanced spectrophotometry, major coffee producers are keeping up with market trends and developing new methods to increase marketability.

## From Bean to Brew

Quality coffee products begin with quality beans, which are carefully inspected and monitored throughout the growing, roasting, and grinding process to ensure proper development of both color and flavor. In order to maximize the potential of each batch, advanced spectrophotometry is utilized throughout each stage of development. From [the quality inspection of raw coffee beans](#) to [the real-time monitoring of the roasting process](#), each step requires advanced technology in order to cultivate a precise color and flavor correlation.

Coffee importation and sales support a worldwide economy, which relies on technology to assure quality and safety throughout the trade market. With a higher volume of imports flooding the industry, efficient analysis ensures that products meet food safety and nutritional guidelines.<sup>1</sup> As volumes increase, verification of quality beans from trusted sources is needed to meet industry standards for quality and proper labeling.<sup>2</sup> With limitless variations in individualized portion pack coffee options, close monitoring of the blending process is pertinent to developing a strong reputation for quality and value.

## Color, Quality, and Convenience

Color technology has long played an important role in coffee production. Spectrophotometry is the leading technology that is used to monitor color quality in coffee production. Color measurement can serve as an indicator of food safety as well as help monitor the processing of coffee throughout the roasting process. As beans are carefully selected for the roasting process, real-time color measurement technology closely monitors color changes to bring beans to the peak of their flavor and aroma. As consumers continue to demand a large variety of coffee selections, each individualized portion must meet the quality standards of the consumer for appearance, flavor, and aroma. All three of these factors can be derived from managing the color of roast and in-line instrumentation ensures consistency from batch to batch, no matter how large or small. Quality and product reputation depend on maintaining these consistencies throughout the product line and spectrophotometry offers an affordable and reliable method to guarantee uniformity throughout the various stages of production.

Full article with photos available here:

<https://www.hunterlab.com/blog/color-food-industry/spectrophotometry-ensures-quality-consistency-portion-pack-coffee-revolution/>