

Thai Curries, United Flavors

By Robert Danhi and Ari Slatkin

Curry—one word that describes and classifies so many dishes from around the globe. Often, each plate, platter or bowl of curry has fewer similarities than differences, yet somehow are grouped together in the genre of curry.

Curry is tied to savory dishes usually containing vegetables and meat, poultry or seafood, with a thick, gravy-like sauce. But the vernacular use of “curry” is similar to the Spanish word “salsa”, literally translated as “sauce.” The reality is there are thousands of different sauces in Mexico.

Just as the word salsa pulls the mind to Mexico, mention curry and most people think of India and the bright-yellow Madras curry powders. Thai and other curry powders are combinations of dried, ground and toasted spices that are used as flavoring and coloring agents in marinades, or applied just as one would use a spice rub. Such powders are often found in dishes that are not a curry themselves—that is, they are devoid of the saucy gravy required of a curry dish, but have a flavor and/or color that is recognizable as curry.

In Thailand, the focus is more on wet spice pastes than the dry powders that predominate throughout the world. Although Thai curry pastes contain some dry ingredients, they should not be confused with the dry spice blends (*masalas*) of India. In Thailand, people use the term *kaeng*

(rhymes with “gang”) to designate a spicy seasoning paste. These intense pastes act as mother sauces in the realm of Thai curry, and are used to form the foundational flavors of all Thai curry dishes. The country has many different curry dishes with varying proteins and vegetables, but all stem from one of these pastes.

Aromatic alchemy

Thai curries are complexly flavored and rely mostly on fresh aromatics like lemongrass, galangal, shallots, garlic, cilantro root and kaffir-lime zest. Layers of flavor are added with dry spices—cumin and coriander being the primary two—yet each curry calls out for different ratios and other dry spices. Chefs and scholars debate the number of different Thai curries, but most agree there are dozens. In the United States, red, green, yellow, *massaman* and Penang curries are the most popular and identifiable, and hence what we will largely focus on here.

Thai curries begin with pulverizing aromatic ingredients, traditionally done with a mortar and pestle. Today, quality results can be achieved using a mechanical grinder. Time-starved home cooks in Asia have moved to the use of blenders that yield satisfactory—but not ideal—results.

There are two distinct differences in the resulting paste: texture and moisture content. Mechanical grinding cuts the spices into small pieces instead of pulverizing them



into the short fibers that result in the most-authentic-textured curry. When using a blender, water is added as needed to facilitate motion. The mortar-and-pestle-made paste has lower moisture content. When making the paste to use right away, the additional water can be cooked off while pan-roasting the paste.

Manufacturers can rely on vertical cutter mixers in the lab for R&D gold-standard curry recipes and benchtop development. When “grinding” with a cutter, to get the best texture and lowest moisture content, a paddle that pushes the mixture back onto the blade is essential.

Primary colors

Five curry pastes form the foundation of Thai curry in America: red, yellow, green, *massaman* and Penang, each possessing a distinctive flavor profile and appearance.

The most commonly known Thai curries are based on red curry paste. This chile-packed concoction is bright-red and as hot as it looks. Ingredients vary slightly from cook to cook and kitchen to kitchen, but red curry paste is generally composed of fresh red Thai bird chiles, dried long red chiles, Thai shrimp paste (*gkapi*), coriander seeds, cumin seeds, white peppercorns, shallots, garlic, kosher salt, lemongrass, galangal, cilantro root and kaffir-lime zest. Red curry dishes commonly feature chicken, beef or duck, as well as sliced bamboo, peppers and/or peas.

The yellow curries of Thailand achieve a brilliant-yellow color and spicy flavor by using ground turmeric in conjunction with a healthy dose of dried long red chiles. Thai yellow curries also usually contain salt, lemongrass, cilantro root, kaffir-lime zest, shallots, garlic and Thai shrimp paste. Yellow curry paste is frequently used with

seafood, as well as green papaya and sometimes tomatoes. Tart tamarind pulp is often added to yellow Thai curry to balance the sweetness of its coconut milk and palm sugar.

Green curry’s fire is camouflaged by apparently cool, green pigments. Do not take this curry lightly. The distinctive color is produced by crushing large amounts of green Thai bird chiles, which are just as hot as their more-ripe red counterparts. Green curry paste is also usually made from cumin seeds, coriander seeds, white peppercorns, salt, lemongrass, galangal, turmeric, cilantro root, kaffir-lime zest, shallots, garlic, long green chiles (same as the long red chiles, just less mature) and Thai shrimp paste. The fresh green chiles and cilantro root in green curry paste pair well with pork and eggplant.

Jungle curry paste is similar in color to green curry paste, but the aroma differentiates it. Jungle curry paste lacks the multitude of roasted spices found in green curry paste. One ingredient unique to jungle curry paste is *krachai* (*Boesenbergia rotunda*), a rhizome sometimes referred to as “Chinese keys.” It has a heady, earthy flavor that is a defining factor of a jungle curry. In addition to *krachai*, most jungle curry pastes contain green Thai bird chiles, salt, lemongrass, galangal, long green chiles, shallots, garlic and Thai shrimp paste. Jungle curry is often combined with duck or river fish, as well as eggplant, beans, sliced bamboo, mushrooms and fresh green peppercorns.

Massaman curry paste is entirely different from the rest—much closer to the Muslim curries of India, which contain a more-diverse array of dried spices, including cinnamon and clove, two spices that seem more at home in the sweet realm to the typical U.S. diner. Another unique aspect of *massaman* curry paste is that it is cooked after pounding, whereas all other curry pastes are left raw until they are incorporated into a curry dish. *Massaman* curry is typically comprised of dried long red chiles, cumin seeds, coriander seeds, white peppercorns, green cardamom pods, cassia (cinnamon), cloves, mace, nutmeg, salt, lemongrass, galangal, cilantro root, kaffir-lime zest, garlic, shallots, Thai shrimp paste and vegetable oil. The sweet spices of southern Thai *massaman* are most often paired with beef, potatoes and peanuts.

Surprisingly, Penang curry paste is not found in the cuisine of its namesake, Penang, Malaysia, but is prevalent in southern Thailand, just across the border from Penang. A defining element of this southern Thai curry is the incorporation of roasted peanuts into the paste itself. It



Photo: Robert Danth

also includes dried long red chiles, cumin seeds, coriander seeds, black peppercorns, nutmeg, salt, lemongrass, galangal, cilantro root, kaffir-lime zest, garlic, shallots, red Thai bird chiles and Thai shrimp paste. It is often paired with chicken or seafood.

Cracking the coconut

With the exception of jungle curry, which uses vegetable oil, all Thai curry dishes begin by adding coconut milk to a hot wok or sauté pan. The coconut milk tames the pungent chile-packed curry pastes a bit, but do not be fooled. The decadent, creamy coconut milk readily absorbs the fat-soluble capsaicin and quickly disperses the pleasantly painful heat evenly across the palate.

The coconut milk is heated until enough water has evaporated to cause the fats and solids to separate, or “break.” This is referred to as “cracking the coconut.” Curry paste is then added to the broken coconut milk and is pan- or wok-roasted until the sharp, raw aromas dissipate and are replaced with rounder, more-nutty aromas. This step is not as important with the *massaman* curries, because the paste has already been fully cooked.

Ingredient Substitutions

Depending on the location of the operation and the quantity needed, some ingredients for Thai curries can be tricky to find. However, don't be easily deterred; many acceptable substitutions still result in authentic flavors. Some of the ingredients common to Thai curries but rare to these parts are listed below, along with an acceptable substitution.

Traditional Ingredient	Substitution
Kaffir-lime zest	Kaffir-lime leaves
Dried long chiles	Dried japone or arbol chiles
Fresh <i>krachai</i>	Pickled <i>krachai</i>
Cilantro root	Cilantro stems

Often, these ingredients are hard to find only because there is little demand for them. Asking your suppliers for some of these exotic ingredients might be all it takes.

For example, cilantro is prevalent and easily acquired throughout the United States, and, of course, to grow and survive, all cilantro plants must have a root—the part we need for Thai curries. The roots are usually left to amend the soil in the field, because farmers do not know that there is a market for the sweet root that tastes like a cilantro-flavored parsnip.

While speaking at the Produce Solutions Conference in April 2008, Robert showcased numerous examples of how culinarians are seeking these ingredients. Within one week, we had samples in the test kitchen of cilantro root and another company inquiring about specification requirements.

At this point, various liquids, usually water or light stock and more coconut milk, are added to the roasted paste mixture. The mixture is stirred to combine, and the protein and hardy vegetables are added. Once the protein has cooked through, the seasoning and sweetening elements are added, usually fish sauce and sugar. After achieving the desired balance of flavor and consistency, the dish is finished with the addition of more-delicate vegetables and fresh herbs. A final stir incorporates the new ingredients and allows them to slightly wilt under the heat.

A notable exception to this process is jungle curry. With its origins in the northern regions of Thailand, where the mountainous, temperate climate isn't conducive to growing coconut palms, this curry traditionally doesn't contain coconut milk. Because it doesn't carry the capsaicin in a uniform manner, like curries with coconut milk, the heat is experienced in bursts rather than constant and consistent waves.

Understanding authentic flavors

Throughout the creation of Robert's new book, “Southeast Asian Flavors,” our R&D team systematically dissected, deconstructed and reconstructed Thai curry powders and pastes, developing recipes to create them from scratch. The results and flavor profiles we were able to achieve were astonishing and matched only by the absurd amount of time, energy and elbow grease required to accomplish this task.

In a restaurant or manufactured application, however, it is impossible to make a profit on such a labor-intensive product. Thankfully, an easy solution comes in the form of prefabricated, ready-to-use curry powders and pastes. There are many different types and brands, and it is important to research each individually before deciding on the right one. We suggest that, before resorting to a prefabricated product, R&D teams make the curry paste and/or powder from scratch first, to obtain some perspective on how it should taste. Then, if none of the ready-to-use products are to your liking, you will be able to identify the missing or overbearing flavor and compensate for this by fortifying the premade paste or powder with fresh ingredients. Alternately, you could work with a supplier to create a formula to match an existing curry product.

Currying domestic favor

America's love affair with Thai food in general, and specifically curry, produces some interesting opportunities for the retail sector, foodservice operators and ingredient suppliers in this country. The American public is no stranger to the frozen-foods aisle, and retail Asian stir-fry kits have been a staple across the country for some time now.

This same application could be easily translated to a frozen Thai curry kit. The kits could be packaged with a packet or bowl of raw, microwavable Jasmine rice, a portion of coconut milk and a packet of Thai curry paste. Shelf-stable kits would also work. Packaging the majority of the spicy ingredients separately and printing graduated lines on the package showing the authentic level of heat and other recommended levels could let consumers decide how spicy to make the dish. Each element of the kit provides opportunities for cross branding with other companies.

The process of cracking the coconut milk and aromatic roasting of curry paste will inspire and entice the home cook while sending the rest of the family running

to the table. For those consumers looking for heat-'n'-eat options, fully prepared Thai curry meals are becoming more available.


Thai curry paste can also be used in nontraditional ways. For example, these flavor-packed pastes could accent salad dressings, such as a red curry lime vinaigrette. Red curry paste blended with a dairy base and seasoned with coconut milk, either powdered or liquid, makes an awesome veggie dip. Blended with some liquid, curry paste increases the overall flavor intensity of a marinade for grilled proteins. Let the reins go and begin to incorporate Thai curry paste into your R&D cycle.

Despite the prevalence of curry pastes in Thailand, various curry powders can be used as a finishing topical seasoning to dishes that typically are seasoned with only salt and pepper. At the 2008 Research Chefs Association annual convention in Seattle, we dined at Flying Fish, a local Seattle restaurant with a focus on fresh, local seafood that was inspired by chef-owner Christine Keff's travels in Thailand.

The curry-spiced calamari appetizer was recommended and confidently referred to as "the best in town." Just one bite, and it was clear that the confidence in this dish was well founded. But the curry powder was not the only reason this dish was so successful; the calamari was also perfectly cooked and unbelievably fresh.

The fried category seems to be ripe with similar opportunities: onion rings, french fries, fried oysters, fish and chips, and even cheese sticks take on a whole new persona when dusted with a little bit of these pungent powders.

Ancient origins, authentic adaptations and inspired renditions all have their place in the marketplace. Some niche markets are looking for the real flavors of Thailand, while other consumers are craving adaptations that recall the memories of Thailand with a tamer spice composition. Sometimes authenticity is thrown out the proverbial window and chefs want to simply weave Thai curry pastes into new products as they design the next hot item on the menu or retail line.

Fortunately, this is all possible with diligent sourcing, dynamic R&D teams and good manufacturing processes. Look to the past, work in the present and innovate for the future to delight your customers as you deliver the flavors of Thailand to their palates. 



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