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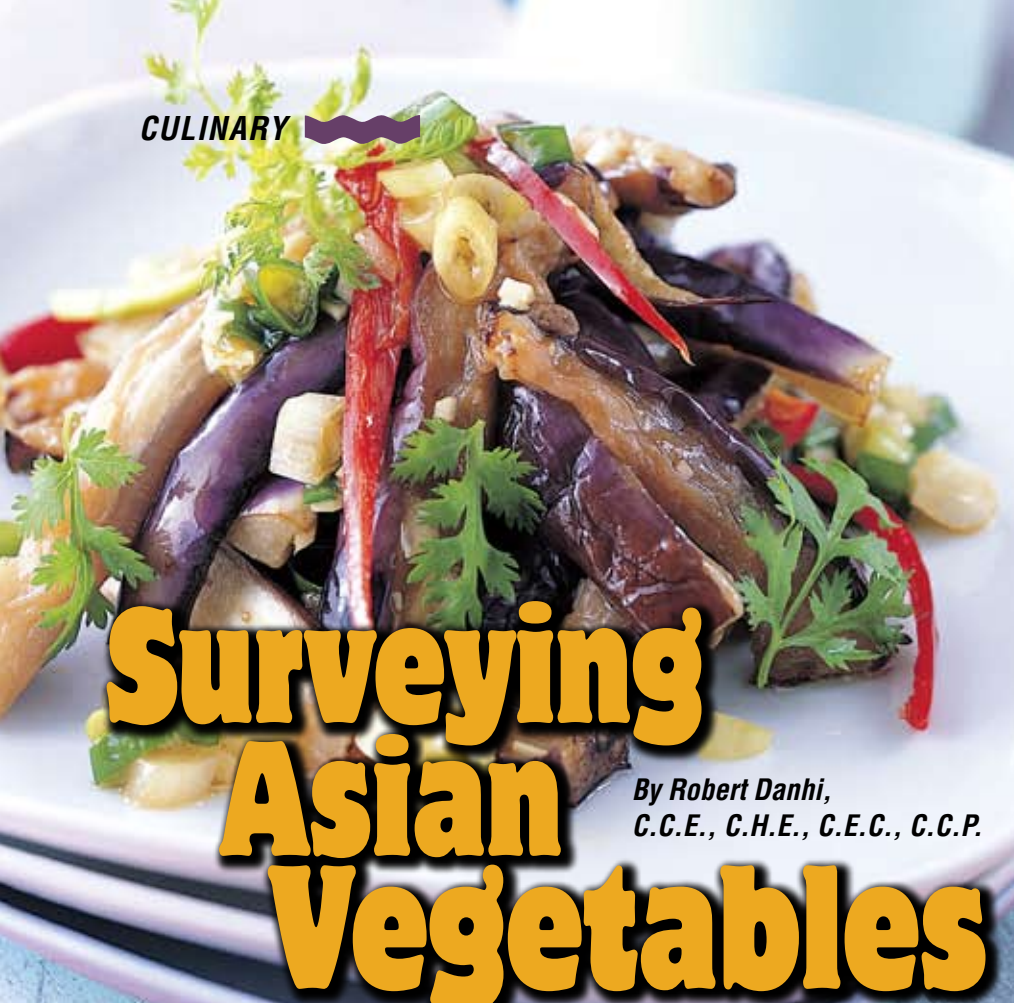
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Surveying Asian Vegetables

By Robert Danhi,
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Asian cuisine continues to be at the forefront of what's hot in foodservice and retail foods. Much of this success is due to the array of textures, multihued colors and vibrant flavors that Asian vegetables contribute.

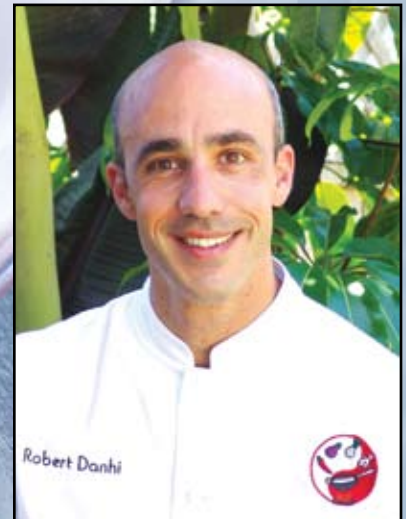
A wide variety of applications can benefit from the use of Asian vegetables. Soups, such as Vietnamese *pho* (pronounced *fuh*), provide an ideal canvas for introducing Asian vegetables. Adding specialty types like roasted onion or chiles lends even more depth of flavor to the soup. The increasing availability of items like long beans and baby bok choy has allowed their use in national retail stir-fry blends. Condiments and seasonings can also benefit from Asian vegetables.

Indispensable greens

Asian cuisine would not be complete, or even exist, without the

bounty of green, leafy vegetables that find their way into stir-fries, soups and fried rice, among other applications. Not long ago bok choy (sometimes called *pak choy*) was the only green on the Asian culinary stage in the United States. This mild, crunchy Chinese white cabbage, used in salads, stir-fries and side dishes, is widely available in fresh form.

Baby bok choy is also served steamed or quickly stir-fried. It has a sweeter flavor than regular bok choy. The thinner, green-stemmed *choy sum* is often tossed with noodles simmered in dark soy sauce with bits of crispy pork and roughly chopped garlic. Precut, washed greens are now entering the scene. For a frozen product, it's often best to substitute a more freeze/thaw-stable vegetable, like cabbage, for bok choy. Although frozen forms of bok choy exist, any soft green suffers from freezing—especially the stem portion that delivers the crunch.



Robert Danhi, C.C.E., C.H.E., C.E.C., C.C.P., partners with organizations to support their human resources, R&D, marketing and sales departments. Danhi's principal partners include the Culinary Institute of America, 7 Paths, Lee Kum Kee, Wing Hing Foods, and the Produce Marketing Association for the educational perspective of their conferences. He has also worked with many other leading companies such as California Pizza Kitchen, P.F. Chang's, Sodexo, Sunkist, Trader Joe's, Panera Bread, Cargill, Nestlé, Starbucks, Super Target, Sara Lee, Kahiki Foods, Cheese-cake Factory, Nabisco, Chinese Gourmet Express, Calphalon, and Pasta Pomodoro. Visit www.chef-danhi.com for more information on Chef Danhi, Inc., which is based in El Segundo, CA.

CULINARY

A side dish of crunchy Asian vegetables and ingredients that add depth of flavor, such as fried shallots, adds ethnic interest. A dash of traditional oyster sauce contributes another layer of flavor.

Cabbage is an inexpensive commodity used in many Asian cuisines. In Asia, it quite possibly is eaten cooked more often than raw. One exception to that rule is the wedges of raw, green cabbage served alongside sticky rice as accompaniments to Thai green papaya salad, a crunchy composition of shredded green papaya, carrots, long beans and tomatoes dressed with fish sauce, dried shrimp, lime juice, garlic, chiles, sugar and omnipresent Asian seasoning, monosodium glutamate. Green cabbage has also too often become an inexpensive filler in stir-fries.

Napa cabbage is often the base of an Asian slaw or a main component of Chinese chicken salad. The Koreans convert it into winter kimchi. This spicy condiment consists of fermented vegetables—mainly chiles and cabbage, and sometimes daikon radish. As the cost of Napa cabbage decreases, there is a chance to pump new life into vegetable stir-fry blends, spring rolls, salads and soups by substituting it for traditional green cabbage.

Spinach is also common in many Asian cuisines. In Japan and Korea, spinach is often blanched, shocked in cold water, drained and pressed dry. The spinach is seasoned with sesame oil, soy sauce, garlic, scallions and sesame seeds for one Korean side dish. In the high-volume production world,



Photo: Robert Danhi

swapping intermediate-moisture vegetables and herbs—when available—for fresh can achieve similar results. The Japanese also use spinach in *maki*-style rolled sushi.

Watercress adds a peppery bite to stir-fries and soups. A similar green, water spinach (also called *kang kong* or *ong choy*), can replace watercress when a blander green is desired. Water spinach also has the unique ability to capture some of the cooking liquid, similar to penne pasta. It is most common in Vietnamese or Malaysian cuisines where it is cooked with *belacan* (shrimp paste) and lightly browned garlic.

One of my biggest surprises years ago on a trip to Asia was finding stir-fried lettuce. Yes, you read that right. The lettuce and Chinese broccoli are quickly cooked in the intense heat of a wok, and oyster sauce serves as the primary flavoring agent. Then, deep-brown, fried shallots are sprinkled across the crisp-tender greens.

Many Western consumers first encounter Chinese broccoli or kale (known as *kai-lan* or *gai-lan*) while

eating dim sum, where its stalks and leaves are most commonly boiled until tender and emerald green, then drizzled with oyster sauce and occasionally sprinkled with toasted sesame seeds. This is a perfect illustration of how the Chinese use condiments to accent the natural flavor of the greens, rather than overwhelm them with foreign flavors.

As Asian cuisine—and especially Chinese food—was translated in the Americas, the more-abundant and less-expensive broccoli replaced many of the greens traditionally used in Asian dishes. The market is beginning to change, as consumers become more savvy and demand more-authentic Asian cuisine.

Chile options

Often, folks automatically think some Asian foods, usually Thai, are all about heat—the burn of capsaicin. This is not necessarily true. It wasn't until the 16th century that chiles even made their way to Asia; before that, ingredients like Szechwan peppercorns and wasabi were the sources of all culinary heat.

However, since that time, fresh and dried, red and green, large and small chiles have found use all across Asia to add interest via color and varying levels of heat.

In northern India, various red chiles let cooks create a brilliant-red color—with or without heat, depending on the chile chosen. Common types include the Kashmiri and Guntur red. Hotter chiles are more common in southern locales like Goa and Kerala, where fresh green and red chiles are chopped and added to simmering sauces and marinades for seafood.

Koreans use mild, coarse chile powder for kimchi and other dishes. A chile paste that adds not only heat but lots of flavor is the Korean red-pepper paste *kochujang* or *gochujang*. Its rich flavor is derived from dried chilies, malt powder, glutinous rice powder and fermented soybeans and adds interest to salad dressings, stewed meats and seafood sauces. It also functions as a thickener.

Other common types of Asian chiles include the Thai bird pepper used in salads, soups and curry pastes; fresh and dried red Holland chiles, similar to cayenne, and red, ripe jalapeños to add heat and flavor to Malaysian sambals and curry pastes; and dried red *japones* to spice up Chinese stir-fries.

Occasionally, whole or chopped chiles are incorporated into manufactured fresh or frozen Asian products, but more often, chiles are added as a sauce or paste. One of the most-popular Asian varieties is Thai Sriracha sauce, made here in the United States from fresh, ripe, red jalapeños and sugar, salt, some acid and, sometimes, fish sauce. When using dried chiles in food

Occasionally, whole or chopped chiles are incorporated into manufactured fresh or frozen Asian products, but more often, chiles are added as a sauce or paste.

processing, beware the hydration factor, as the appearance and taste of products will change soon after production, especially when cold processing. When a sauce is made with dried, coarse chiles, the full spiciness has not had a chance to dissipate into the surrounding liquid immediately after manufacture. Prehydrated ingredients like chile pastes provide more-consistent results.

Asian roots

Like many Asian vegetables, the roots and tubers typically used have dual identities as raw or cooked items. However, roots may be the most versatile of the bunch, as they can be transformed into crispy garnishes, silky purées, crunchy slaws or rich stews.

Carrots, arguably the most-familiar vegetable across all cuisines, are thought to have been first domesticated in Central Asia. These are the ancestors of the recently reintroduced yellow and purple varieties that are winning over bored consumers. Our familiar orange carrot has, like broccoli, become the ubiquitous, all-purpose vegetable. More authentic Asian vegeta-

ble blends that include carrots mixed with baby bok choy and Chinese long beans have been entering the market.

Terra Chips® could possibly be credited with making taro known to millions of Americans. In Southeast Asia, *bo bo cha cha*, a sweet soup, is prepared by simmering taro alongside sweet potatoes in a pandan-perfumed, sweetened coconut broth. This traditional dessert could form the basis of an ice-cream flavor, smoothie base or bubble tea (*boba*) drink. Since taro becomes crackling crisp when deep fried, it makes excellent baskets or shells for holding stir-fries. Taro's flavor is starchy and slightly sweet, although it has a lighter texture than potatoes due to the lower starch content. Taro can retain its crunchy texture through processing.

It was not long ago that lotus stems were only found sliced thin and used as a garnish at fine-dining restaurants like Roy's in Hawaii. All parts of the lotus plant are used, but it is imperative that the leaves and stems be cooked thoroughly before eating. Otherwise the calcium oxalate crystals will cause a intense irritation in the throat of its victim—



Photo: Robert Danthi

the effect is temporary, but quite unpleasant. Cooked, dried lotus leaves serve as wrappers for sticky and steamed rice in China; the stems accent soups like Vietnamese seafood soup; and the seeds are used in desserts whole or worked into a sweetened paste for fillings of dumplings and mooncakes.

Most people typically associate jicama with Latin American cuisine, yet this tuber is also found in Southeast Asia, where it's known as *singkamas* ("yam bean"). In Asia, it is sometimes cooked with oil, garlic, light and dark soy sauce, ground bean sauce and sugar to create a filling for Malaysian spring rolls known as *popiah*. I also find that jicama often makes an excellent substitute for water chestnuts when fresh are not available.

Water chestnuts' starchy, sweet crunch is a traditional internal garnish for dumplings and sliced for stir-fries. Metallic-flavored canned water chestnuts are no com-

parison to the crisp, slightly sweet, fresh ones. The starch derived from this underwater corm is especially adept at creating crisp coatings for deep-fried foods.

Daikon radish may be most prevalent in Japanese cuisine, grated fine and added to soy sauce and *dashi* (fish and kelp broth) and served with tempura, since it is believed to help with the digestion of oily foods. Daikon's flavor is much milder and sweeter than typical Western radishes. The Koreans slather daikon with salt for kimchi. Seasoning the radish with chili and fish sauces, as well as copious amounts of garlic and scallions, then simmering with short ribs creates the dish *kalbi chim*. Look west to China and this versatile root is simmered in soups or as part of a Chinese-style *mirepoix*. It works well in meat broths accented with star anise. In Singapore, there is a dish strangely called *chai tau kueh* ("carrot

As more Asian vegetables hit the U.S. ingredient supply chain, designers have the ability to transform product offerings by substituting common types with newly available ethnic varieties.

cake"), where grated daikon is fried with garlic and eggs. A newer addition to the Asian American culinary scene is daikon sprouts (*kaiware*). Most people first encounter them at sushi bars, peeking out of a salmon-skin hand roll, or used by fine-dining chefs as a final garnish. They are rarely, if ever, cooked.

Bitter melon or bitter melon (*kugua gan* in China, and *karela* in India), with its irregular, channeled, bumpy exterior, possesses enough bitterness for a lifetime of most average American consumers, but it is quite popular in Asia in Chinese stir-fries and soups, and as chips in India (fried *karela* chips). In the Philippines, it is part of *pinakbet*, along with eggplant, tomato, okra, beans, chiles and ginger.

Kabocha squash, a native to Japan, is now used in many Asian and non-Asian cuisines. The Japanese often simmer the cubes of the brilliant-orange flesh in a combination of soy sauce, *mirin* (sweet cooking sake) and *dashi*. Imagine the texture of a sweet potato and the flavor of a sweet pumpkin all in one hard winter squash. I am waiting for the first manufacturer to create and market a *kabocha* squash mash or, since they are so hard to peel, a peeled and diced ingredient.

Emerging pods

Pods and legumes such as soybeans, snow peas and okra may now be considered mainstream. The long bean, the foot-long-plus green bean of China, is a newcomer to the mainstream market. These can sometimes grow as long as 3 ft., hence their other nickname, yard-long beans. They're tougher than green beans and are often fried with fermented black-bean paste and garlic. I find that blanching them first tenderizes them a bit.

Soybeans increasingly find use in Asian-inspired Western cuisine. Unshelled types have become a snack, boiled in the pod and served at Japanese restaurants with only salt as seasoning. Shelled, they have made it into the quick-serve restaurant segment via McDonald's Asian Chicken Salad. Since the beans are usually frozen anyway, they were flawlessly brought into the supply chain. Many do not realize that soybeans grow in a rainbow of colors: the common green, as well as brown, blue and even black.

Fermented soybeans deserve credit for much of the complex, umami-rich flavors in Asian cuisine. Black soybeans are inoculated with *koji*, a mold strain. The enzymes break down the protein and maximize the glutamic acid's flavor-enhancing power. In the manufacturing segment, we can capitalize on this vegetable-turned-umami-powerhouse by using black-bean sauce to season soups, sauces and side dishes. Once soybeans are dried, they become a fundamental ingredient that can be transformed into myriad seasonings, such as soy sauce and hoisin sauce, that add a layer of flavor to fresh vegetables, meats and

seafood. Koreans prefer sprouted soybeans—usually blanched first—for salads and hot dishes, rather than mung bean sprouts, which are popular elsewhere in Asia.

Millions of pounds of sprouted mung beans, simply known as bean sprouts, are consumed daily in stir-fries, cooked down in spring-roll fillings, and tossed into salads. At a Vietnamese *pho* restaurant you will see table salads, a mound of bean sprouts, fresh Asian basil (with a slight anise flavor), sliced jalapeños and a few wedges of lime at the ready for the consumer to add to their aromatic beef broth as they slurp away. The bean sprouts are added to the soup a pinch at a time to ensure a good crunch. This is one of the ingredients that challenge larger restaurant chains, due to its short shelf life and occasional bacterial issues in raw form.

Also popular are pea sprouts, young snow pea plants harvested less than two weeks after germination. The tips of a slightly more mature plant are referred to as pea shoots, and their flavor is a bit closer to the snow pea that we have all come to love in stir-fried vegetables.

Mushrooming opportunities

Mushrooms are fungi, but they're treated like vegetables in the kitchen. They are responsible for deep flavors in food. The amazing umami-rich flavors in mushrooms are so rich they are used to produce an oyster-sauce substitute for vegetarians who crave protein-rich flavor.

Shiitake mushrooms, native to China, have become the hallmark of mushrooms in Asian cuisine. This Japanese name is substituted with *donggu* in Chinese and translated in the Korean language as oak mushroom, as that is the type of wood

they grow on. It used to be necessary to remove the stems, as they were inedible, but recent advances in growing techniques permit as-is use. Shiitake mushrooms go into miso soup, *dashi* and stir-fries.

Other top choices include the now-common oyster mushroom, used in soups and stir-fries; delicate enoki mushrooms, simmered in Korean soups; and cloud ear mushrooms, which lend their resilient texture to hot-and-sour soups and spring rolls. Straw mushrooms are most commonly found in Thai cooking, such as in tom yum soup. They can only be found canned here in the United States, as attempts to grow them domestically have all failed. That's quite a shame, as I tasted these in Thailand shortly after they were harvested off of rice straw and their texture is nothing like the canned variety. Expensive matsutake mushrooms—which tend to go for no less than \$35 per lb.—can replace rarer truffles. A technique chefs have been using for years is to grind these umami-rich fungi into powder to flavor sauces, marinades and dry rubs. Fortunately, mushroom powder can be bought in bulk to add depth of flavor to dips, sauces, soups and protein marinades.

Asian vegetables—true building blocks of flavor—have been part of the evolution of Asian cuisines for several thousands of years. Fortunately, supplies of lesser-known types are on the rise, and the demand is there, pulling domestic growers in new directions. A growing field of restaurateurs, food manufacturers and marketing teams are ready to create exciting, new authentic Asian and similarly inspired products for the marketplace. ■