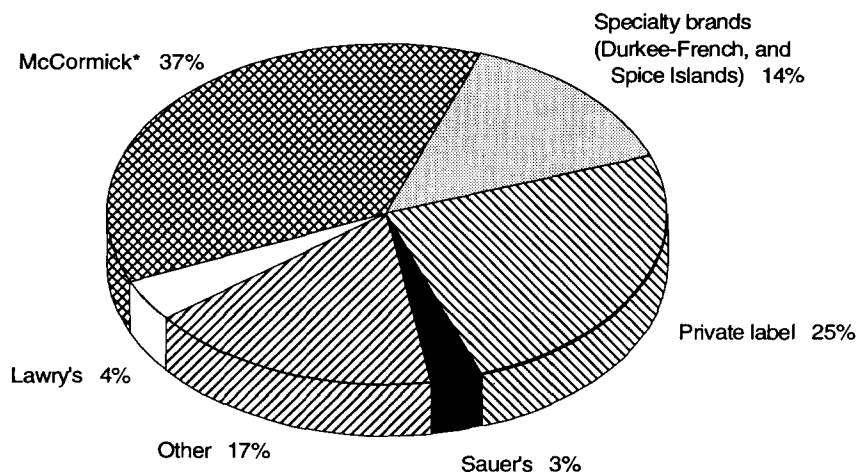


Figure 13

U.S. distribution of retail spice market



*McCormick & Co., Maryland markets its retail spices under the Schilling label in the Western United States.
Source: Industry contacts.

consumption at the consumer, foodservice, and industrial levels.

At present, spices traded on an ASTA contract must be accompanied by a certificate of analysis. The certificate of analysis is issued by a laboratory approved by ASTA before the merchandise can be released from the port of arrival. The majority of spice products imported are not tested for ASTA compliance unless there is a requirement in the purchase contract or the customer of the importer requires the certificate.

In addition to its work in the United States, ASTA's Quality Assurance Committee has recently reissued a "Clean Spice Manual" and has held education seminars in producer countries (for example, India, Egypt, Turkey). ASTA is currently designing a Hazard Analysis Critical Control Point (HACCP) Program for prevention, detection, and control of salmonella in pepper. This program is being presented to pepper producing countries.

Role of the U.S. Government

The U.S. Government has several functions that impact the trade and consumption of spices. With respect to market access, unground and unprocessed spices have generally been admitted duty-free into the United States with no restrictions on quantity. Since

January 1, 1976, the United States Generalized System of Preferences (GSP) has been in effect designating selected products from developing countries eligible for duty-free entry into the United States. Tables 28, 29, and 30 provide up-to-date tariff nomenclature information and rates for the major spices imported into the United States, as well as special trade agreement rates and restrictions. Text box 3 provides a listing of the countries that receive special trade rates or restrictions (pages 36-37).

The U.S. Customs Service, Department of the Treasury, approves the classification of imports, collects duties, and investigates irregularities or omissions in import documentation. U.S. Customs information on the value and volume of imports provides the basic data on which the U.S. trade statistics on spices and other merchandise are compiled. U.S. Government regulations stipulate that each container or package of imported spices, oils, or oleoresins must be legibly marked in a conspicuous place with the name of the country of origin in English. This allows the ultimate purchaser in the United States to know the name of the country in which the article was manufactured or produced. It also facilitates the compiling of trade data and collection of import fees.

The Food and Drug Administration (FDA) administers regulations based on the Federal Food, Drug, and Cosmetic Act, as amended. Spices must comply with FDA regulations concerning misbranded food (section

Table 28--U.S. spice tariff codes

Item	Tariff schedule of the United States of America (TSUSA)	Harmonized tariff schedule (HTS)
	Before 1989	1989 to present
Allspice (Pimento)	1618600	0904208000
(Ground)	1618800	included/0904208000
Anise	1610100	0909100000
Basil	1610300	1211908040
(other than crude)	1610500	included/1211908040
Capers	1610600,1610800	0711300000,2001901000,2001902000
Capsicum or Red peppers:		
Anaheim and Ancho	1618000	0904204000
Other	1618300	0904206000
(Ground)	1618400	0904207000
Caraway	1610900	0909400000
Cardamom	1611100	0908300000
Cassia	1611300	included/cinnamon, unground
(Ground)	1611500	included/cinnamon, ground
Celery seed	1262100	1209912000
Cinnamon	1611700	0906100000
(Ground)	1611900	0906200000
Cloves	1612100	0907000000
(Ground)	1612300	included/0907000000
Coriander	1612500	0909200000
Cumin	1612700	0909300000
Curry and curry powder	1612900	0910500000
Dill	1613100	0910995000
Fennel	1613300	0909500000,0712906000*
Garlic (Dehydrated)	1403000	0712904040
Ginger (ungr. inc. fresh)	1613500	0910102000
(Ground)	1613700	0910104000
(Sweet)	1418700	2008996300
(Candied root)	1544000	2006003000
Laurel (Bay) leaves	1613900	0910402000
(Other than crude)	1614100	0910404000
Mace	1614700	0908204000
(Bombay or Wild)	1614300	0908202000
(Ground)	1614900	0908204000
(Ground Bombay or Wild)	1614500	0908202000
Marjoram	1615100	0712906000*
(Other than crude)	1615300	0712907000*
Mint leaves	1615500	1211902000
(Manufactured)	1615700	1211904020,1211904040
Mustard seed	1616100	1207500000
(Ground)	1615800	2103302000
(Prepared, other)	1616000	2103304000
Nutmegs	1616300	0908100000
(Ground)	1616500	included/0908100000
Onions (Dehydrated)	1404000	0712204000
Origanum	1616700	0910992000
(Other than crude)	1616900	0910994000
Paprika	1617100	0904202000
Parsley	1617300	0712906000*
(Manufactured)	1617500	0712906500
Pepper, black	1617720	0904110020
Pepper, white	1617740	1904110040
(Black and white ground)	1617900	0904120000
Poppy seed	1753600	1207910000
Rosemary	1619000	1211908030*,1211908090*
(Other than crude)	1619200	1211908030*,1211908090*
Saffron	1932560 *	0910200000
Sage	1619400	1211908050
(Ground or Rubbed)	1619600	included/1211908050
Savory	1620100	0712906000*
(Other)	1620300	0712907000*
Sesame seed	1754500	1207400000
Tarragon	1620500	0712906000*
(Other than cured)	1620700	0712907000*
Thyme	1620900	0910402000
(Other than crude)	1621100	0910403000
Turmeric	1621300	0910300000
Vanilla beans	1931500	0905000000
Mixed Spices, other	1621500	0910910000,0910996000
Paprika, Oleoresin	4502010	3301301010
Black pepper, Oleoresin	4502015	3301301020
Other spice, Oleoresins	4502025	3301301050

* Denotes basket classifications.

Table 29—U.S. Schedule B nomenclature for spice export data, 1980–88, and 1989 to present

Spice name and/or category, 1989 to present	1980–88 Schedule B number	1980–88 classification and/or description	Comments on Schedule B classification, 1980–88	Schedule B number, 1989 to present	Comments on Schedule B classification, 1989 to present
Anise or badian seeds	162.1700 *	Other spices *	Other spices basket, but badian not specifically mentioned *	0909.10.0000 *	Specifically reported, beginning 1989 *
Capers	162.1700	Other spices *	Other spices basket *	0711.30.0000 *	Unsuitable for immediate consumption *
Capsicum peppers	161.8100	Red peppers	Capsicum peppers basket, including paprika	0904.20.0000	Includes paprika and allspice
Caraway seed	162.1700 *	Other spices *	Other spices basket *	0909.40.0000 *	Specifically reported, beginning 1989 *
Cardamoms	162.1700 *	Other spices *	Other spices basket *	0908.30.0000 *	Specifically reported, beginning 1989 *
Cinnamon (including cassia)	161.1800	Cinnamon and cassia	Specific item	0906.10.0000 and 0906.20.0000	Neither crushed or ground Crushed or ground
Cloves	162.1700 *	Other spices *	Other spices basket *	0907.00.0000 *	(Whole fruit, cloves and stems) *
Coriander seed	162.1700 *	Other spices *	Other spices basket *	0909.20.0000 *	Specifically reported, beginning 1989 *
Cumin seed	162.1700 *	Other spices *	Other spices basket *	0909.30.0000 *	Specifically reported, beginning 1989 *
Curry	162.1700 *	Other spices *	Other spices basket *	0910.50.0000 *	Specifically reported, beginning 1989 *
Fennel seed; juniper berries	162.1700 *	Other spices *	Other spices basket, but juniper berries not specifically mentioned *	0909.50.0000 *	Specifically reported, beginning 1989 *
Garlic, dehydrated	140.5100	Garlic, dehydrated	Specific item	0712.90.4040	Separately reported, before 1989
Ginger	162.1700 *	Other spices *	Other spices basket *	0910.10.0000 *	Specifically reported, beginning 1989 *
Mace	162.1700 *	Other spices *	Other spices basket *	0908.20.0000 *	Specifically reported, beginning 1989 *
Mustard seed	161.6100	Mustard seeds	Specific item	1207.50.0000	Separately reported, before 1989
Mustard flour and meal and prepared mustard	161.6000	Mustard flour and prepared mustard	Specific item	2103.30.0000	Separately reported, before 1989
Nutmeg	162.1700 *	Other spices *	Other spices basket *	0908.10.0000 *	Specifically reported, beginning 1989 *
Onions, dehydrated	140.5300	Onions, dehydrated	Specific item	0712.20.4000	Separately reported, before 1989
Pepper, black and white	161.7800	Black and white pepper	Specific item	0904.11.0000 and 0904.12.0000	Neither crushed or ground Crushed or ground
Poppy seed	175.6040	Oil-bearing nuts and seeds, NSPF	Other oil seeds basket	1207.91.0000	Specifically reported, beginning 1989
Saffron	Not specifically mentioned in Schedule B Nomenclature Index, prior to 1989			0910.20.0000	Specifically reported, beginning 1989
Sesame seed	175.6040	Oil-bearing nuts and seeds, NSPF	Other oil seeds basket	1207.40.0000	Specifically reported, beginning 1989
Thyme; bay leaves	162.1700 *	Other spices *	Other spices basket *	0910.40.0000 *	Specifically reported, beginning 1989 *
Turmeric	162.1700 *	Other spices *	Other spices basket *	0910.30.0000 *	Specifically reported, beginning 1989 *
Other spices	162.1700	Other spices	Other spices basket	0910.91.0000 and 0910.99.0000	Mixtures Other spices
Garlic, powder or flour	140.7100	Vegetables reduced to flour (powder)	Vegetables reduced to flour (powder), includes flour (powder) of vegetables other than onions and/or garlic	0712.90.4020	Specifically reported, beginning 1989
Onions, powder or flour	140.7100	Vegetables reduced to flour (powder)	Vegetables reduced to flour (powder), includes flour (powder) of vegetables other than onions and/or garlic	0712.20.2000	Specifically reported, beginning 1989
Vanilla beans	193.2500	Vegetable substances, crude, NSPF	Vegetable substances, crude, NSPF, basket	0905.00.0000	Specifically reported, beginning 1989

* As noted above, the "Other spices" basket specifically included (from index), 14 Schedule B export items with an *, that are now separately reported, beginning in calendar 1989.

Source: Foreign Trade Division, Bureau of the Census, U.S. Department of Commerce.

Table 30—U.S. spice duties under the harmonized tariff schedule (HTS), 1994

			Rate of duty		
Spice description	HTS code	Units of quantity	1		2
			General	Special	
Allspice (Pimento)	0904208000	Kg	Free		Free
Anise	0909100000	Kg	Free		Free
Basil	1211908040	Kg	Free		Free
Capers	0711300000	Kg	8%	Free (A,E,IL,J,MX) 3.2% (CA)	20%
Capsicum or Red peppers:					
Anaheim and Ancho	0904204000	Kg	11 cents/kg	Free (CA,E,IL,J) 9.9 cents/kg (MX)	11 cents/kg
Other:					
Not ground	0904206000	Kg	5.5 cents/kg	Free (CA,E,IL,J,MX)	5.5 cents/kg
Beginning 1994:					
Bell peppers	0904206010	Kg	5.5 cents/kg	Free (CA,E,IL,J,MX)	5.5 cents/kg
Jalapeno peppers	0904206020	Kg	5.5 cents/kg	Free (CA,E,IL,J,MX)	5.5 cents/kg
Other peppers	0904206090	Kg	5.5 cents/kg	Free (CA,E,IL,J,MX)	5.5 cents/kg
Ground	0904207000	Kg	11.2 cents/kg	Free (A,E,IL,J,MX) 4.4 cents/kg (CA)	17.6 cents/kg
Paprika	0904202000	Kg	3 cents/kg	Free (A,E,IL,J,MX) 1.2 cents/kg (CA)	11 cents/kg
Caraway	0909400000	Kg	Free		Free
Cardamoms	0908300000	Kg	Free		Free
Celery seed	1209912000	Kg	Free		4.4 cents/kg
Cassia/Cinnamon	0906100000	Kg	Free		Free
Ground	0906200000	Kg	Free		11 cents/kg
Cloves	0907000000	Kg	Free		Free
Ground	0907000000	Kg	Free		Free
Coriander	0909200000	Kg	Free		Free
Cumin	0909300000	Kg	Free		Free
Curry and Curry powder	0910500000	Kg	Free		11 cents/kg
Dill	0910995000	Kg	Free		25%
Fennel seed; Juniper berries	0909500000	Kg	Free		Free
Fennel, dried, crude	0712906000	Kg	Free		Free
Fennel manufactured	0712907000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Garlic (dehydrated)	0712904040	Kg	35%	Free (CA,E,J) 32.6% (MX)	35%
Ginger (unground, incl. fresh):	0910102000	Kg	Free		Free
Ground	0910104000	Kg	2.2 cents/kg	Free (A,E,IL,J,MX) 0.8 cent/kg (CA)	11 cents/kg
Sweet	2008996300	Kg	9%	Free (A,E,IL,J,MX) 3.6% (CA)	35%
Candied	2006003000	Kg	5.4%	Free (A,E,IL,J,MX) 2.1% (CA)	20%
Laurel (bay) leaves	0910402000	Kg	Free		Free
Other than crude	0910404000	Kg	5%	Free (E,IL,J,MX) 2% (CA)	25%
Mace:					
Bombay or wild, ground	0908202000	Kg	16.5 cents/kg	Free (A,E,IL,J,MX) 6.6 cents/kg (CA)	49 cents/kg
Other	0908204000	Kg	Free		Free
Marjoram, dried	0712906000	Kg	Free		Free
Manufactured	0729070000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Mint Leaves	1211902000	Kg	Free		Free
Manufactured	1211904040	Kg	7.5%	Free (A,CA,E,IL,J,MX)	25%

Continued —

Table 30—U.S. spice duties under the harmonized tariff schedule (HTS), 1994—Continued

Spice description	HTS code	Units of quantity	Rate of duty		2
			1	Special	
			General		
Mustard seed:	1207500000	Kg	Free		4.4 cents/kg
Flour and meal	2103302000	Kg	Free		22 cents/kg
Prepared mustard	2103304000	Kg	4.4 cents/Kg	Free (A,E,IL,J,MX) 1.7 cents/kg (CA)	22 cents/kg
Nutmegs	0908100000	Kg	Free		Free
Onions, (dehydrated)	0712204000	Kg	25%	Free (CA, E,IL,J) 23.3% (MX)	35%
Origanum	0910992000	Kg	Free		Free
Other than crude	0910994000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Parsley, dried	0712906000	Kg	Free		Free
Manufactured	0712906500	Kg	6%	Free (A,E,IL,J,MX) 2.4% (CA)	20%
Pepper, black	0904110020	Kg	Free		Free
Pepper, white	0904110040	Kg	Free		Free
Crushed or ground	0904120000	Kg	Free		2 cents/kg
Poppy seed	1207910000	Kg	0.13 cent/kg	Free (A,CA,E,IL,J,MX)	0.7 cents/kg
Rosemary	1211908090	Kg	Free		Free
Saffron	0910200000	Kg	Free		Free
Sage	1211908050	Kg	Free		Free
Savory, dried	0712906000	Kg	Free		Free
Manufactured	0712907000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Sesame seed	1207400000	Kg	Free		2.6 cents/kg
Tarragon, dried	0712906000	Kg	Free		Free
Manufactured	0712907000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Thyme, crude	0910402000	Kg	Free		Free
Other than crude	0910403000	Kg	7.5%	Free (A,E,IL,J,MX) 3% (CA)	25%
Turmeric	0910300000	Kg	Free		Free
Vanilla beans	0905000000	Kg	Free		66 cents/kg
Other spices:					
Mixtures	0910910000	Kg	3%	Free (A,E,IL,J,MX) 1.2% (CA)	25%
Other spices	0910996000	Kg	3%	Free (A,E,IL,J,MX) 1.2% (CA)	25%
Extracted oleoresins:					
Paprika	3301901000	Kg	6%	Free (A*,CA,E,IL,J,MX)	25%
Black pepper	3301901020	Kg	6%	Free (A*,CA,E,IL,J,MX)	25%
Other spice oleoresins	3301901050	Kg	6%	Free (A*,CA,E,IL,J,MX)	25%

Note: The "Rates of Duty" columns designated 1 ("General" and "Special") and 2 of the tariff schedule apply to goods imported into the custom territory of the United States. Column 1 "General" subcolumn sets forth the general most-favored-nation (MFN) rates. The "Special" tariff treatment programs are as follows with corresponding symbols.

Generalized System of Preferences.....A or A*
 United States—Canada Free—Trade Agreement.....CA
 Caribbean Basin Economic Recovery Act.....E or E*
 United States—Israel Free Trade Area.....IL
 Andean Trade Preference Act.....J or J*
 United States—Mexico Free—Trade Agreement.....MX

U.S. Products of Countries Designated Beneficiary Developing Countries for Purposes of Generalized Systems of Preferences (GSP).

The following countries, territories, and associations of countries eligible for treatment as one country (pursuant to section 502(a)(3) of the Trade Act of 1974 (19 U.S.C. 2462(a)(3)) are designated beneficiary developing countries for the purposes of the Generalized System of Preferences, provided for in Title V of the Trade Act of 1974, as amended (19 U.S.C. 2461 et seq.):

Independent countries

Albania	Guatemala	Rwanda
Angola	Guinea	St. Kitts and Nevis
Antigua and Barbuda	Guinea Bissau	Saint Lucia
Argentina	Guyana	Saint Vincent and the Grenadines
Bahamas, The	Haiti	Sao Tome and Principe
Bahrain	Honduras	Senegal
Bangladesh	Hungary	Seychelles
Barbados	India	Sierra Leone
Belize	Indonesia	Slovakia
Benin	Israel	Solomon Islands
Bhutan	Jamaica	Somalia
Bolivia	Jordan	Sri Lanka
Botswana	Kenya	Suriname
Brazil	Kiribati	Swaziland
Bulgaria	Kyrgyzstan	Syria ¹
Burkina Faso	Latvia	Tanzania
Burundi	Lebanon	Thailand
Cameroon	Lesotho	Togo
Cape Verde	Lithuania	Tonga
Central African Republic	Madagascar	Trinidad and Tobago
Chad	Malawi	Tunisia
Chile	Malaysia	Turkey
Colombia	Maldives	Tuvalu
Comoros	Mali	Uganda
Congo	Malta	Uruguay
Costa Rica	Mauritius	Uzbekistan
Cote d'Ivoire	Morocco	Vanuatu
Cyprus	Mozambique	Venezuela
Czech Republic	Namibia	Western Samoa
Djibouti	Nepal	Yemen Arab Republic (Sanaa)
Dominica	Niger	Zaire
Dominican Republic	Oman	Zambia
Ecuador	Pakistan	Zimbabwe
Egypt	Panama	Each of the former republics of the Socialist Federal Republic of Yugo- slavia other than Serbia and Montenegro
El Salvador	Papua New Guinea	
Equatorial Guinea	Paraguay	
Estonia	Peru	
Ethiopia	Philippines	
Fiji	Poland	
Gambia, The	Russia	
Ghana		
Grenada		

¹Syria deleted effective August 16, 1992.

Continued

Nonindependent countries and territories

Anguilla
Aruba
British Indian Ocean
Territory
Cayman Islands
Christmas Island
(Australia)
Cocos (Keeling) Islands
Cook Islands
Falkland Islands
(Islas Malvinas)

French Polynesia
Gibraltar
Greenland
Heard Island and
McDonald Islands
Macau
Montserrat
Netherlands Antilles
New Caledonia
Niue

Norfolk Island
Pitcairn Island
Saint Helena
Tokelau
Trust Territory of the
Pacific Islands (Palau)
Turks and Caicos Islands
Virgin Islands, British
Wallis and Futuna
Western Sahara

Associations of countries (treated as one country)

Member countries
of the
Cartagena Agreement
(Andean Group)

Consisting of:

Bolivia
Colombia
Ecuador
Peru

Members of the
Association of
South East Asian
Nations (ASIAN)
Eligible for GSP
except Brunei,
Darussalam,
and Singapore

Consisting of:

Indonesia
Malaysia
Philippines
Thailand

Member countries
of the
Caribbean Common
Market (CARICOM)

Consisting of:

Antigua and Barbuda
Bahamas, The
Barbados
Belize
Dominica
Grenada
Guyana
Jamaica
Montserrat
St. Kitts and Nevis
Saint Lucia
Saint Vincent and
the Grenadines
Trinidad and Tobago

403) and adulterated food (section 402). For example, ASTA defines spice as "any dried plant product used primarily for seasoning purposes." Included are tropical aromatics (pepper, cinnamon, cloves, etc.); leafy herbs of the temperate zone (oregano, basil, sage, etc.); spice seeds (sesame, mustard, caraway, etc.); and dehydrated vegetables used as spices (onion, garlic, bell peppers, etc.). FDA's definition of spices is similar to ASTA's. Dehydrated vegetables may not be labeled as "spices." Paprika, turmeric, and saffron or other spices which are also colors, shall be declared as "spice and coloring" unless declared by their common or usual name.

Imports of all spices, seeds, and herbs into the United States are subject to the health and sanitation regulations of the FDA. These regulations are intended to assure the consumer that foods are pure and wholesome, safe to eat, and have been produced under sanitary conditions. Examination is carried out by the FDA at the time of arrival. Laboratory tests may be requested by FDA to detect problems such as pesticide residues or salmonella.

Most spice cargoes are not sampled on the pier, but after the shipments have been moved to a warehouse or to the importer's plant. FDA clearance is required to move the product more than 50 miles from the port of entry. If moved, the entire shipment must be held intact until released by FDA.

The Government also plays an important role in the emerging new field of food irradiation. Some imported spices and other foods are treated with gamma radiation to kill bacteria, molds, and other disease-causing organisms. Plants that do this type of work are inspected regularly by the Nuclear Regulatory Commission and the Occupational Safety and Health Administration, among other agencies. Currently, however, radiation is not widely used on spices due to lack of widespread consumer acceptance. It is important to note that a food product using an irradiated spice as an ingredient does not have to be labeled. According to FDA, the labeling requirement applies only to a food that has been irradiated, not to a food that merely contains an irradiated ingredient but that has not itself been irradiated.

The U.S. Department of Agriculture (USDA) provides the U.S. spice industry with several direct and indirect public service functions. USDA provides farm extension and plant research information to domestic spice growers. USDA also performs a public service of compiling, analyzing, and distributing spice trade statistics and other market and nutrition information.

These functions are performed by USDA's Research, Education, and Economics' agencies and Foreign Agricultural Service.

USDA's Animal and Plant Health Inspection Service (APHIS) plays a leading regulatory role in preventing the importation of restricted articles. For example, before being imported into the United States, shipments of cumin seed from Pakistan packed in jute or burlap bagging are required to be fumigated with methyl bromide. APHIS requires that this be done, at the cost of the importer, to prevent the possible entry into the United States of Khapra beetle (*Trogoderma granarium Everts*). Another example is ginger root imports, which are prohibited from certain countries and require an import permit if shipped from other countries.

Outlook

The Bureau of the Census forecasts U.S. population to grow to 274.8 million by the year 2000. At the current (1990-94) per capita rate of 3.19 pounds, that would translate into total domestic use of spices of 877 million pounds in the year 2000, up 8 percent from the early 1990's base period (figure 14). But all indications are that the growth is likely to be even higher. The trend toward less salt in foods will likely continue to stimulate more condiment use to compensate for flavor loss. Growth in consumption of ethnic foods will also stimulate the rise in use of more and a greater variety of spices. The U.S. population is becoming both more Asian and more Hispanic. According to the U.S. Census Bureau, the Asian population grew from 4.4 million in 1982 to 8.2 million in 1992 and the Hispanic population grew from 15.9 million to 23.7 million in 1992. Moreover, Asian and Hispanic cuisine is increasing in popularity and this will continue to cause a surge in the use of spices common to these cultures. For example, capsicum spice imports increased by 85 percent from 32.0 million pounds in 1984 to 59.2 million in 1994--an indicator of the increasing popularity of Latin American foods.

Many restaurants are popularizing the terms "Pacific Rim" and "Tastes of Asia" cooking today, signifying a menu apt to offer dishes from any and/or all parts of Korea, Taiwan, Thailand, Vietnam, Burma, Malaysia, the Philippines, and Indonesia, as well as India, Japan, and the various regional cuisines of China. Typical spices of these countries--ginger, onion, garlic, red pepper, coriander (seeds, leaves), black and white pepper, anise, cumin, fennel, cloves, nutmeg, curry powder, cinnamon, star anise, mace, turmeric--