

CRS Report for Congress

Food and Agricultural Imports from China

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Summary

U.S. food and agricultural imports have increased significantly in recent years, causing some in Congress to question whether the U.S. food safety system can keep pace. A series of recent incidents have raised safety concerns about the many foods, medicines, and other products from China in particular. For example, in early 2007, evidence began to emerge that adulterated pet food ingredients from China had caused the deaths of an unknown number of dogs and cats. In late June 2007, the U.S. Food and Drug Administration (FDA) announced that it was detaining all imports of farm-raised seafood from China (specifically, shrimp, catfish, basa, dace, and eel) until the shippers of these products could confirm they are free of unapproved drug residues.

U.S. imports of all Chinese food, agricultural, and seafood products have increased from nearly 0.411 million metric tons (MMT) in 1996 to 1.833 MMT in 2006, a 346% rise. The increase by value was 375%, from \$880 million in 1996 to \$4.2 billion in 2006. China was the sixth leading foreign supplier of agricultural products to the United States and the second leading seafood supplier in 2006. When seafood values are combined with food and agricultural products, China was the third leading foreign supplier, after Canada and Mexico.

Two federal agencies — FDA and the U.S. Department of Agriculture's (USDA's) Food Safety and Inspection Service (FSIS) — are primarily responsible for the government's food regulatory system, although a number of other federal, state, and local agencies also have important roles. For imports, FSIS (which has oversight over most meat and poultry) relies on a very different regulatory system than FDA (which has oversight over other foods). Although all imported food products must meet the same safety standards as domestically produced foods, international trade rules permit a foreign country to apply its own, differing, regulatory authorities and institutional systems in meeting such standards, under an internationally recognized concept known as "equivalence."

Despite recent statements by China that it is moving aggressively to improve its food safety system and close unsafe plants, some Members of Congress have expressed sharp criticism of both China's food safety record and U.S. efforts to insure the safety of imports. Congressional committees have held, or are planning, hearings on food safety concerns generally and on the China situation particularly. On May 2, 2007, Senator Durbin won unanimous approval of an amendment to the Senate-passed FDA Revitalization Act (S. 1082) that would require domestic and foreign facilities to notify FDA of food safety problems, and would require FDA to establish a central registry for collecting information and notifying the public about adulterated foods, and for notifying the public about adulterated human or animal foods. The amendment includes elements of his proposed Human and Pet Food Safety Act of 2007 (S. 1274), introduced as H.R. 2108 by Representative DeLauro. The two lawmakers also have introduced more comprehensive bills (H.R. 1148/S. 654) to combine current federal food safety oversight under a new food safety administration.

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Food and Agricultural Imports from China

Introduction

Food and agricultural imports have increased significantly in recent years, causing some in Congress to question whether the U.S. food safety system can keep pace. Analysts point out that domestically sourced foods also can pose safety problems, as evidenced by recent outbreaks of illness linked to consumption of raw produce and by continuing recalls of meat and poultry products due to bacterial contamination.¹

However, a series of recent incidents have raised safety concerns about the many foods, medicines and other products from China in particular. For example, in early 2007, evidence began to emerge that adulterated pet food ingredients from China had caused the deaths of an unknown number of dogs and cats. Furthermore, some ingredients also were fed to U.S. food animals, although federal officials claimed that humans were not at risk. In late June 2007, the U.S. Food and Drug Administration (FDA) announced that it was detaining all imports of farm-raised seafood from China (specifically, shrimp, catfish, basa, dace, and eel) until the shippers of these products could confirm that they are free of unapproved drug residues.

Although it has strongly defended its record, the Chinese government also has announced a variety of steps to improve the safety of its food and drug exports, including planned major revisions in its regulations, new inspections, and the closure of nearly 200 problem plants.

These and other developments have greatly heightened public and congressional scrutiny not only of China's own food safety regime, but also of the adequacy of U.S. import safeguards. In the 110th Congress, a number of congressional committees have held hearings on or launched investigations of food imports from China and elsewhere and the U.S. laws and regulations designed to ensure their safety. Bills also have been introduced aimed at clarifying and expanding federal authorities and/or reorganizing agency responsibilities. FDA officials claim that they are examining how best to determine relative risks among products (imported and domestically produced) and among exporting countries. Underlying all of these efforts is the question of whether the agency has sufficient money and staff to address these risks.

Import Trends

U.S. imports of agricultural and seafood products from all countries increased from 32.9 million metric tons (MMT) in calendar year 1996 to 46.7 MMT in 2006, or by 42%. The increase by value was 98%, from \$40.1 billion in 1996 to \$78.5

¹ See CRS Report RL32922, *Meat and Poultry Inspection: Background and Selected Issues*, by Geoffrey S. Becker; and CRS Report RL33722, *Food Safety: Federal and State Response to the Spinach E. coli Outbreak*, by Donna V. Porter.

billion in 2006. Among the product categories that at least doubled in volume during the period were live animals, wine/beer, fruit/vegetable juices, wheat, coffee, snack foods, and various seafood products.²

Not all agricultural imports enter the human food supply; some products are used as ingredients in pet food and animal feed, in manufactured goods (e.g., rubber), and in the nursery plant trade. Nonetheless, consumers are obtaining a growing portion of their diets from overseas. In 2005, nearly 15% of the overall volume of U.S. food consumption was imported, compared with 11%-12% in 1995. The proportions (volume) for some food product categories are much higher: in 2005 as much as 84% of all U.S. fish and shellfish was imported (55% in 1995); 43% of all noncitrus fresh fruits (34% in 1995); 37% of all processed fruits (20% in 1995); and 54% of all tree nuts (40% in 1995).³

U.S. imports of Chinese agricultural and seafood products have increased far more rapidly than the global increase, from nearly 0.411 MMT in 1996 to 1.833 MMT in 2006, a 346% rise. The increase by value was 375%, from \$880 million in 1996 to \$4.2 billion in 2006.

In 2006, China was the sixth leading foreign supplier of agricultural products to the United States (after Canada, Mexico, Italy, Australia, and Ireland, in that order) and the second leading seafood supplier (after Canada). When seafood values are combined with agricultural products, China was the third leading foreign supplier, after Canada and Mexico (see **Table 1**, below).

Table 1. Leading Suppliers of U.S. Agricultural and Seafood Imports, CY2006
(value in billion U.S. dollars)

Country	Agricultural	Seafood	Total
Canada	\$13.433	\$2.184	\$15.617
Mexico	9.390	0.454	9.844
China	2.262	1.922	4.184
Thailand	1.812	1.334	3.146
Italy	2.802	.009	2.811
Indonesia	2.023	0.778	2.801
Chile	1.774	.952	2.726
Australia	2.487	.091	2.578
Brazil	2.237	.130	2.367
Ireland	2.354	.008	2.362
World Total	65.333	13.143	78.475

Source: USDA, Foreign Agricultural Service (FAS), BICO Import Commodity Aggregations.

² U.S. Department of Agriculture (USDA), Foreign Agricultural Service (FAS), U.S. Trade Internet System, BICO (Bulk, Intermediate, and Consumer-Oriented) data.

³ USDA, Economic Research Service (ERS), unpublished data, obtained May 11, 2007. Other data including that provided by FDA indicate that the current percentage for seafood is somewhat lower than 84%.

Table 2, below, shows the major types of food and agricultural imports from China in 2006. Seafood products, including shrimp, other shellfish (mollusks), and salmon, were the leading food-related (i.e., agricultural and seafood) imports. Fruits, fruit juices, vegetables, tree nuts, teas, and spices also were high on the list.

Table 2. Selected Agricultural and Seafood Imports from China, CY2006

Import	Value (\$1,000)	(metric tons unless specified)
Other fish & products (not listed below)	\$1,076,631	332,714
Shrimp & prawns	331,935	68,364
Mollusks	245,607	62,727
Misc. horticultural products	226,047	109,910
Fruit, processed	207,427	247,554
Fruit juices (<i>kiloliters</i>)	201,935	933,566
Other crustaceans	159,352	22,051
Feed, ingredients & fodders	147,850	59,988
Misc. industrial use	143,780	12,574
Vegetables, prepared or preserved	122,854	131,002
Poultry, misc. ^a	120,765	15,436
Sugar & related products	104,611	46,429
Salmon	97,792	26,482
Vegetables, dried/dehydrated	93,254	68,516
Edible tree nuts	80,853	10,070
Fresh vegetables, excluding potatoes	77,555	76,296
Other oilseeds products, nonagricultural	75,645	27,857
Grains and feed, misc.	75,495	46,422
Misc. meat products ^a	69,673	15,672
Tea, excluding herbal	68,174	24,007
Misc. hair, industrial use	59,781	13,513
Vegetables, frozen	54,513	67,893
Spices	49,929	43,156
Cocoa & cocoa prods.	48,278	11,661
Misc. sugar and tropical	46,606	13,433
Essential oils	40,249	3,896
Fruit, dried	39,766	7,349
Rice	36,428	104,894

Source: USDA, FAS, FAS Import Commodity Aggregations. Not all products listed.

a. Primarily species not subject to FSIS inspection; see text, footnote 6.

The broader categories in **Table 2** mask some specific products that the United States imports from China. For example, The United States received \$941 million in various types of fish fillets. Mushrooms accounted for at least \$37 million of the dried vegetable category in 2006.

A recent report by Food and Water Watch, a consumer advocacy organization, noted that China became the leading exporter of seafood to the United States in 2004. Aquaculture has facilitated this growth in exports, particularly of shrimp and tilapia. Catfish, eel, and crab imports also have risen significantly.⁴

U.S. Import Safeguards

Overview

Although all food products imported into the United States must meet the same safety standards as domestically produced foods, international trade rules permit a foreign country to apply its own, differing, regulatory authorities and institutional systems in meeting such standards, under an internationally recognized concept known as “equivalence.”⁵

Two federal agencies — the U.S. Department of Agriculture’s (USDA’s) Food Safety and Inspection Service (FSIS) and the U.S. Department of Health and Human Services’ Food and Drug Administration (FDA) — are primarily responsible for the government’s food regulatory system, although a number of other federal, state, and local agencies also have important roles. For imports, FSIS relies on a very different regulatory system than FDA, including a different approach to addressing equivalence, as described in the following sections.⁶

FSIS

Under Section 20 of the Federal Meat Inspection Act (FMIA) as amended (21 U.S.C. 601 et seq.) and Section 466 of the Poultry Products Inspection Act (PPIA) as amended (21 U.S.C. 451 et seq.), FSIS is responsible for determining the equivalence of other countries’ meat and poultry safeguards.⁷ A foreign plant cannot

⁴ *Import Alert: Government Fails Consumers, Falls Short on Seafood Inspections*. Food and Water Watch, May 2007. Accessed on the Internet on June 5, 2007, at [<http://www.foodandwaterwatch.org/press/publications/reports/import-alert>].

⁵ This concept is embodied in Article 4 of the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement), which entered into force January 1, 1995, for member nations of the World Trade Organization (WTO). For a more detailed explanation, see CRS Report RL33472, *Sanitary and Phytosanitary (SPS) Concerns in Agricultural Trade*, and the WTO website at [http://www.wto.org/english/tratop_e/sps_e/sps_e.htm].

⁶ The two systems are described in more detail in CRS Report RS22664, *U.S. Food and Agricultural Imports: Safeguards and Selected Issues*, from which this section is adapted.

⁷ FSIS coverage is of the major commercial red meat and poultry species and their products, (continued...)

ship products to the United States unless FSIS has certified that its country has a program that provides a level of protection that is at least equivalent to the U.S. system.⁸ In addition, FSIS operates a reinspection program at U.S. border entry points. Generally, agency inspectors review all import records, assisted by a computerized statistical sampling program, the Automated Import Inspection System (AIIS), that enables targeting of some shipments for actual inspection — examining their physical condition, labeling, and documentation. China is not yet certified to ship FSIS-regulated meat and poultry products (the major commercial species) to the United States.

Meat and poultry imports from other countries, however, have increased significantly, from nearly 2.3 billion pounds presented for inspection in FY1996 to 4.3 billion pounds in FY2005. FSIS has estimated that it physically examined approximately 20% of all such imports in FY1996 and 9.7% in FY2005 (after implementation of the AIIS in the early 2000s).

FDA

Under Section 801 of the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended (21 U.S.C. 301 *et seq.*), FDA can refuse entry to any food import if it “appears,” based on a physical examination or otherwise, to be adulterated, misbranded, or in violation of the law.⁹ In exercising its oversight, the agency relies on a system of prior notifications by importers and document reviews at points of entry (ports). Importers must have an entry bond and file a notification for every shipment. Import information is entered into FDA’s database, the Operational and Administrative System for Import Support (OASIS). This system helps inspectors to determine a shipment’s relative risk and whether it needs closer scrutiny (i.e., actual examination and/or testing). FDA inspectors work closely with Customs and Border Protection officials from the Department of Homeland Security on these tasks.¹⁰

The volume of FDA-regulated imports has more than tripled in the past decade. The agency received more than 10 million imported food lines (shipments) in FY2006, compared with less than 2.8 million shipments in FY1996. Just over 1% of these shipments were physically examined in FY2006, compared with 1.7% in

⁷ (...continued)

while FDA has jurisdiction over any meat and poultry not inspected by FSIS.

⁸ A list of the 38 currently certified countries can be accessed on the FSIS website at [http://www.fsis.usda.gov/regulations_%26_policies/Eligible_Foreign_Establishments/index.asp].

⁹ 21 U.S.C. § 381(a); see also [http://www.fda.gov/ora/compliance_ref/rpm_new2/ch9auto.html].

¹⁰ The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (P.L. 107-188) expanded the prior notification requirements for FDA-regulated imported foods. It also now requires any imported or domestic facility that manufactures, processes, packs, or holds food for U.S. consumption to register with the FDA; farms and retail establishments are among those exempted. Further, the act requires records sufficient to identify the immediate supplier as well as the subsequent recipient of the product.

FY1996. A food line is a single shipment, regardless of size — whether a single carton or a large carlot — making it difficult if not impossible to determine the share of the total volume of imports that is actually being examined.

FDA's ability to operate within other countries appears to be more limited than that of FSIS. FDA can, and does, periodically visit foreign facilities to inspect their operations, but usually in response to a concern and only with the permission of the foreign government. Furthermore, the agency asserts that it lacks the staff and funding to increase its presence overseas, regardless of whether it might have the legal authority to do so.¹¹ The FDA's Center for Food Safety and Applied Nutrition (CFSAN) had a total budget of \$450 million and staff of 2,843 (full-time equivalent or FTE) in FY2006, of which \$285 million and 1,962 FTEs were in the field.¹²

FDA theoretically has the authority to require equivalency standards for Chinese imports, but the agency's situation is significantly more complex than that of FSIS (which regulates fewer types of food products), as stated by David Acheson, the FDA's Assistant Commissioner for Food Protection, at a May 9, 2007, hearing before the House Agriculture Committee. An equivalence-type approach is one possible option for the future, he added.¹³ The Government Accountability Office (GAO) in 1998 had concluded that border inspections alone were ineffective and also asserted that FDA lacks the statutory authority to mandate equivalency.¹⁴

FDA Import Refusals

Overview and Limitations of Analysis

Using the OASIS data, the FDA compiles a monthly "Import Refusal Report" for food shipments that it rejects. Such products have to be either re-exported or destroyed by the importer. The agency posts these monthly refusal reports on its website, but only for the most recent 12 months (i.e., only one year's worth of refusals).¹⁵ The refusals for each month can be searched by country or by product category, but not by both at the same time. Data for only 12 months, from May 2006

¹¹ An FDA website notes that "[f]ull equity in foreign inspections is far beyond the resources of FDA." Accessed May 15, 2007, at [<http://www.cfsan.fda.gov/~comm/intl-toc.html>].

¹² House Appropriations Committee Hearings, Agriculture Appropriations for FY2007. A further breakdown of field staff involved with imported foods was not immediately available, although CRS had reported it to be 595 FTEs out of a total of 1,452 field staff in FY1996 (in out-of-print CRS Report 98-850, *The Safety of Imported Foods: The Federal Role and Issues Before Congress*, by Donna U. Vogt, available from the author).

¹³ "Officials defend federal response to melamine contamination," *Food Chemical News*, May 14, 2007.

¹⁴ GAO Report RCED-98-103, *Food Safety: Federal Efforts to Ensure the Safety of Imported Foods Are Inconsistent and Unreliable*. April 1998.

¹⁵ FDA website, accessed May 31, 2007, at [http://www.fda.gov/ora/oasis/ora_oasis_ref.html].

through April 2007, appeared on the website as of May 2007, and the months were not aggregated into annual figures.¹⁶

For each line (shipment), the system provides the name of the source company and the reason for refusal. As noted earlier, the size of each shipment in the OASIS database varies. Therefore, it is not possible to calculate the volumes of products being rejected, either as an absolute quantity or as a proportion of total imports. Also, the types or categories of imports do not necessarily correspond to the categories reported through the FAS trade databases (see **Tables 1** and **2**, above).

Mindful of these caveats, CRS prepared a preliminary tabulation of the refusals, focusing on nearly 40 categories of FDA-regulated food and food-related products.¹⁷ For the one-year period available at the time of this CRS tabulation (May 2006-April 2007), FDA logged a total of approximately 8,200 refusals. Of these, more than 700 separate shipments were from China. Two other countries had more shipments refused: Mexico with nearly 1,300 and India with more than 1,100 (see **Table 3**).

It is important to note that a higher relative number does not necessarily indicate that one country's products are less safe, or its food safety system less rigorous, than another country's. The country simply might be a more important source of U.S. agricultural and/or seafood imports. On the other hand, Canada, which imports much more to the United States than any other country, had far fewer refusals than either China or Mexico, the second most important U.S. importer in dollar value. India had the second highest number of refusals, even though it is not among the top 10 exporters of food, agricultural, and seafood products to the United States.¹⁸

Because of technical problems with OASIS at the time this report was prepared, FDA officials said they could not immediately respond in detail to CRS questions about the database that might have shed additional light on the significance, if any, of the numbers in **Table 3**. For example, the information published on the FDA website does not include the overall number of shipments. Thus, CRS could not calculate for this report the percentage of overall shipments that had been refused for a given month, country, or product. However, FDA did receive a total of nearly 15 million import shipments of all types of FDA-regulated products, including but not limited to foods, during FY2006, or an average of approximately 1.25 million shipments per month.¹⁹

¹⁶ CRS did not examine FSIS import refusals. China currently is not certified by FSIS to export meat or poultry products to the United States. A proposed rule in the November 23, 2005, *Federal Register* to permit some types of processed poultry is pending.

¹⁷ Also listed in the OASIS refusal reports, but not examined here, are other FDA-regulated products, e.g., human and animal drugs, medical devices, and vitamins.

¹⁸ Still, India's exports to the United States were valued at a significant \$1.4 billion in calendar 2006.

¹⁹ FDA e-mail communication to CRS, June 6, 2007.

**Table 3. Number of Import Refusals by Country,
May 2006-April 2007**

Argentina	59	Guatemala	97	Peru	39
Australia	34	Honduras	113	Philippines	153
Bangladesh	54	Hong Kong	52	Poland	76
Brazil	123	India (2)	1,109	Russia	26
Canada	193	Indonesia (5)	334	South Africa	42
Chile	35	Iran	26	Spain	75
China (3)	720	Italy (8)	228	Sri Lanka	72
Colombia	45	Jamaica	36	Syria	70
Costa Rica	35	Japan (7)	295	Taiwan	165
Dominican Republic (4)	593	Korea (South)	111	Thailand (9)	218
Ecuador	56	Lebanon	26	Turkey	81
Egypt	47	Malaysia	35	Ukraine	25
El Salvador	25	Mexico (1)	1,271	United Kingdom (10)	206
France	178	Netherlands	54	Vietnam (6)	335
Ghana	49	Pakistan	140		

Source: FDA Import Refusal Reports for OASIS. See text for caveats on use of data. Countries with fewer than 25 refusals are omitted here.

Note: Numbers in parentheses indicate top ten countries by rank of number of import refusals.

Reviewing refusals by industry, vegetables/vegetable products and seafood products appear to have been the most frequently refused products (at approximately 1,700 shipments from all countries for each of these two product types). Fruits/fruit products from all countries accounted for nearly 900 refusals. Candy products accounted for nearly 600, and spices/flavors/salts for more than 500. Many fruit and vegetable product refusals originated in the Dominican Republic, Mexico, and several other Latin American and Caribbean nations; a frequently cited reason was pesticide contamination. Bacterial contamination (e.g., Salmonella) or filthy condition was cited numerous times.

Fish and shellfish were refused for a variety of reasons, often bacterial contamination, filthy condition, and/or veterinary drug residues. These products most frequently appear to have originated in Asian countries, not only China but also Vietnam, India, Bangladesh, and others. The recent report by Food and Water Watch analyzed the FDA OASIS refusals of seafood in more detail, and for all calendar years from 2002 to 2006. Among its findings were that more than 70% of all imported seafood products were processed. More than 20% of all seafood refusals were due to Salmonella, of which 40% were shrimp. It also observed that more seafood is being refused for veterinary drug residues.²⁰

²⁰ *Import Alert: Government Fails Consumers, Falls Short on Seafood Inspections.*

Many refusals of foods of all types also appear to be due to concerns about mislabeling, failure to register, or failure to document that the product had complied with safe manufacturing practices (e.g., HACCP for low acid canned foods or seafoods).²¹

Refusals of Imports from China

Of the 720 refused shipments from China, nearly half (340) were seafood products, and approximately one-third of these products were eel. The most frequently cited reason for rejecting the eel shipments was a concern about adulteration by unsafe levels of veterinary drug residues. Catfish products also were often refused, usually because of concerns about veterinary drug residues. A wide variety of other types of finfish, from tilapia fillets to cod and salmon products, was refused for numerous apparent concerns, including veterinary drug residues, filthy appearance, and *Salmonella* contamination. More than three dozen separate shrimp shipments were refused because of filthy appearance, the presence of nitrofurans (a banned antibiotic), or *Salmonella*. Other examples of refused seafoods were scallops, crawfish, and squid.

FDA also refused a total of 221 shipments of various fruits and vegetables from China, including processed products. Approximately one-fourth of these shipments were of mushrooms, often in dried form; these were most frequently rejected for filthy appearance. Other reasons for refusing fruit and vegetable product shipments ranged from concerns about the presence of violative levels of pesticides or other unacceptable ingredients, including unsafe color additives, to the lack of proper documentation and/or labeling.

Seafood products and fruit and vegetable products together constituted the majority of refused shipments from China. Examples of other types of food products that were refused, although in fewer numbers, were certain candies, bean curd and bean paste, teas, and various nuts and spices.

Chinese officials strongly defend their safety record. One official asserted at a May 31, 2007, news conference that U.S. inspectors had approved “99 percent” of all Chinese food and medical shipments over the last three years and that recent reports of rejected Chinese shipments had been sensationalized. He further argued that most of those that had been rejected were unauthorized shipments that had skirted Chinese controls.²² Other Chinese officials have declared that U.S. importing companies need to look beyond their emphasis on low prices and communicate more clearly what their standards are.²³

²¹ The FDA website defines each of these terms, which are among approximately 180 possible specific reasons for refusal.

²² Li Yuanping, director general of the Chinese Import and Export Food Safety Bureau, as quoted in various news reports including “China Says Food Export Inspections Are Effective,” *Washington Post*, June 1, 2007. Also see “China Confronts Crisis Over Food Safety,” *Wall Street Journal*, May 30, 2007.

²³ “U.S., Chinese leaders try to advance trade, food safety issues,” *Agri-Pulse*, May 30, 2007.

FDA officials said they could not immediately respond to a CRS request for the number of food and agricultural shipments from China during the period examined (May 2006–April 2007). They did state that in FY2006, the overall refusal rate for shipments from China (food and all other types of FDA-regulated shipments) was 0.15%. They cautioned that the 99.85% of shipments were not necessarily in compliance, because the agency only has the resources to examine 1% of all line entries (shipments) into the country (see discussion above).²⁴

William Hubbard, a former FDA deputy commissioner, recently told National Public Radio (NPR) that total “individual shipments of food and ingredient exports from China to the United States have gone from 82,000 in 2002 to 199,000 in 2006. And I’m told by FDA officials that they’re rapidly reaching up to 300,000 this year.”²⁵ However, the same NPR report said that FDA inspectors had blocked 257 food imports from China in April 2007 alone; that number actually represented refused shipments of all FDA-regulated food, drug, and medical products, not foods alone.

Chinese Food Safety Challenges

As noted, the FDA OASIS database does not provide answers as to whether Chinese imports are any less safe than those from other countries. Nonetheless, the country has come under intense criticism in the wake of several widely publicized incidents involving adulterated food, agricultural, and medical exports. For example, in early 2007 pet food ingredients from China that contained the chemical melamine — apparently added to boost the ingredients’ protein levels — sickened or killed an unknown number of dogs and cats in North America. The ingredients subsequently were found in some hog, chicken, and fish feed. A risk assessment indicated the problem posed virtually no risk to humans, USDA and FDA officials asserted. Another incident attracted attention in early May 2007, when the Mississippi Commissioner of Agriculture ordered a number of stores there to stop selling catfish from China after samples tested positive for antibiotics banned in the United States.

Such concerns are not new. An FDA import inspector was quoted in 1991: “Some countries we almost never have problems with.... But others, such as India, Thailand, China, Korea, and many countries in Africa, require constant vigilance.”²⁶

A number of analysts has examined the food safety challenges China faces as it becomes a major agricultural exporter. USDA economists recently wrote:

China emerged in the 1990s as a low-cost exporter of food products such as vegetables, apples, seafood, and poultry. But in recent years, China’s exports slowed when shipments of vegetables, poultry and shrimp were rejected for

²⁴ FDA e-mail communication to CRS, June 6, 2007.

²⁵ “Q&A: Why China Tops the FDA Import Refusal List,” accessed May 25, 2007, at [<http://www.npr.org/templates/story/story.php?storyID=10410111>].

²⁶ Sharon Snider, “From Psyllium Seeds to Stoneware: FDA Insures the Quality of Imports,” *FDA Consumer Magazine*, March 1991.

failing to meet stringent standards in Japan, Europe, and other countries, revealing a gap between Chinese and international food safety standards.²⁷

Some analysts contend that China's problems in complying with other — usually more developed — countries' safety requirements are typical of those faced by most developing countries. They point to a number of specific obstacles the Chinese have encountered in upgrading their safeguards, including:

- the difficulty of standardizing and monitoring production practices at the farm production level, to which many safety problems can be traced due to widespread noncompliance with existing regulations such as environmental rules, and which is composed of 200 million households typically farming on plots of one to two noncontiguous acres;
- heavy use of fertilizers and pesticides to counteract intensively cultivated soils and large pest pressures;
- wide use of antibiotics to control diseases in intensive livestock, poultry, and aquaculture systems;
- industrialization, lax environmental controls, and untreated human and animal waste in fields and waters, which raise concerns about toxic, metal, and microbial contaminants in food;
- a fragmented marketing system dominated by millions of small firms handling small volumes, often on a cash basis with no documentation or ability to trace products;
- a fragmented regulatory and oversight structure involving 10 national government ministries and little coordination with lower levels of government, which often have their own, differing standards for food products; and
- for many commodities and industries, outdated or nonexistent standards, or standards that are inconsistent with internationally accepted ones.²⁸

Chinese Efforts to Address Food Safety

To overcome such obstacles, the Chinese government announced it has undertaken a number of major initiatives to bolster its food safety system. For example, officials announced their intention to update a 1995 consumer food law, and in 2006 the Chinese legislature adopted a national framework for building an agricultural product safety system. The Chinese say they now require registration of

²⁷ Linda Calvin et al., "Food Safety Improvements Underway in China," *Amber Waves*, November 2006, USDA, ERS. The Codex Alimentarius Commission is the major international body for encouraging international trade in food while promoting the health and economic interest of consumers. Codex is a subsidiary of the Food and Agriculture Organization and the World Health Organization. One of its key functions is to develop standards, codes of practice, and guidelines for the safety of foods, in accordance with the SPS Agreement. The Codex website is at [<http://www.codexalimentarius.net>].

²⁸ Calvin. Also, Fengxia Dong and Helen H. Jensen, "Challenges for China's Agricultural Exports: Compliance with Sanitary and Phytosanitary Measures," *Choices*, 1st quarter 2007.

all land and processing facilities used for exported products, and exporters must have facilities that can test for pesticide residues. The government also samples and tests products for export to help ensure they meet foreign buyers' standards.²⁹

China also has been encouraging investment, including foreign direct investment, in production and processing to improve technology, marketing and management skills, and transportation and infrastructure. Six types of processed foods — canned food, aquatic products, meat and meat products, frozen vegetables, fruit/vegetable juice, and some frozen convenience foods — reportedly are to be manufactured under HACCP (hazard analysis and critical control point) standards.³⁰ HACCP is a system of assessing risks, determining the points at which they might occur during production, and instituting measures to prevent them.³¹

China announced that it will unveil, by the end of 2007, national regulations for recalling adulterated food. At a May 31, 2007, news conference, a Chinese official also pointed to the death sentence handed down to the former head of the government's food and drug safety agency, as an example of its determination to improve product oversight. The agency head had been convicted of taking bribes for approving potentially dangerous drugs. He reportedly was executed on July 10, 2007.³²

In late June, one Chinese government agency reportedly announced the closure of 180 food manufacturers that it said had been using industrial materials such as dyes, mineral oils, hydrochloric acid, paraffin, and formaldehyde in a variety of food products, including flour, candies, seafood, pickles, and biscuits. Another agency reportedly claimed to have closed 152,000 unlicensed food manufacturers and retailers in 2006 for making counterfeit or low-quality products.³³

U.S. Efforts to Improve Import Compliance

At May 15 and May 17, 2007, media briefings on adulteration of plant proteins from China, FDA Assistant Commissioner for Food Protection Acheson reported that he was currently reviewing all aspects of the U.S. food safety system, including imports from all countries. At the time, he and other FDA officials declined to provide specifics on ongoing efforts to secure food safety agreements of any kind with China but did point out that, after shipments of Mexican cantaloupes with Salmonella contamination several years ago, the U.S. and Mexican governments had developed an agreement to improve agricultural practices in Mexico.

²⁹ Calvin.

³⁰ Dong.

³¹ FDA information on HACCP is at [<http://www.cfsan.fda.gov/~lrd/haccp.html>].

³² "China Executes Former Head of Food Safety Agency," *Wall Street Journal*, July 10, 2007.

³³ Various news reports, including *Food Chemical News*, July 2, 2007.

FDA's Center for Food Safety and Nutrition (CFSAN) website indicates that it is aggressively pursuing both formal and informal agreements with foreign government counterparts to achieve mutual recognition of equivalence of regulatory systems. Another FDA website lists more than 90 "International Arrangements" with approximately 30 separate foreign entities, of which 36 appear to be directly food-related. Roughly a third of these address aspects of shellfish or other seafood safety.³⁴ FDA's agreements with China apparently do not include any for food, but are in place for lead in tableware.

During a May 22-24, 2007, economic summit with China, the U.S. government requested a meeting soon, possibly in the fall, specifically on food safety. It asked the Chinese to respond to the following specific requests:

- to provide detailed information on Chinese food safety control measures, including the procedures, methodology, and technology for testing and quarantine of suspect products;
- to provide raw data from the testing the Chinese government has conducted on regulated products;
- to provide the ongoing results of all tests for melamine in ingredients destined for humans or animals;
- to impose a registration requirement for all Chinese firms intending to export food and feed products to the United States, and to prohibit exports from unregistered firms;
- to publish a regularly updated list of the registered Chinese firms;
- to issue necessary clearances including multi-year and multi-entry visas for FDA personnel to conduct health-related inspections in China and to audit systems confirming that Chinese firms are meeting U.S. requirements.³⁵

In the most significant move to date, the FDA on June 28, 2007, issued an import alert ordering the "Detention Without Physical Examination" of all of the following aquacultured products from China: catfish, basa (related to catfish), shrimp, dace (related to carp), and eel.³⁶ FDA said it issued the notice after targeted sampling during October 2006 through May 2007 "repeatedly found that farm-raised seafood imported from China were contaminated with antimicrobial agents that are not approved for this use in the United States." The agents are nitrofurans, malachite green, and gentian violet, which have been found to be carcinogenic to laboratory animals; and fluoroquinolones, which when used in food animals may increase antibiotic resistance in humans, the agency said.

Under such an import alert, FDA will detain all covered products until the importing firm demonstrates, through testing by an independent laboratory, that a

³⁴ Both websites accessed May 15, 2007, at [<http://www.cfsan.fda.gov/~comm/intl-toc.html>].

³⁵ "Actions Requested of the People's Republic of China by the U.S. Government to Address the Safety of Food and Feed," USDA Fact Sheet accessed May 25, 2007, at [<http://www.usda.gov>].

³⁶ FDA Import Alert #16-13, which may be viewed at [http://www.fda.gov/ora//fiars/ora_import_ia16131.html]

representative sample of their product is free of these contaminants. Although the FDA has long issued these types of alerts for various imports, they generally are more limited in scope, for example, to a particular firm or product.

The import alert reiterates that approximately 80% of U.S. seafood consumption is from imports and that over 40% of these imports come from aquaculture operations. Shrimp and catfish are two of the top 10 most frequently consumed seafood products. China is the largest aquaculture producer in the world, with 70% of total production, and the third largest exporter to the United States. The alert observes: “As the aquaculture industry continues to grow and compete with wild-caught seafood products, concerns regarding the use of unapproved animal drugs and unsafe chemicals and the misuse of animal drugs in aquaculture operations have increased substantially.”

Congressional Consideration

Some Members of Congress have expressed sharp criticism both of China’s food safety record and of U.S. efforts to insure the safety of that country’s imports. The House Agriculture Committee held a hearing on May 9, 2007, to take testimony on the topic from FDA and FSIS officials. Several other panels have held hearings on the broader topic of FDA food safety efforts. Additional hearings on the China situation and on food safety generally are anticipated in both chambers during the 110th Congress.

Concerns about China were cited by Senator Durbin and Representative DeLauro in a May 10, 2007, letter to the U.S. Trade Representative (USTR). In the letter, they requested a review of SPS measures in U.S. trade agreements and of legal options the United States has with respect to imported food products that pose a public health threat. A May 22, 2007, letter by Representative DeLauro, who chairs the House Appropriations subcommittee with responsibility for USDA and FDA, and Representative DeGette, also called on President Bush to press the food safety issue at the May 22-24, 2007, economic summit with China.

On May 2, 2007, Senator Durbin won unanimous approval of an amendment to the Senate-passed FDA Revitalization Act (S. 1082) that would require domestic and foreign facilities to notify FDA of food safety problems; would require FDA to establish a central registry for collecting information on adulterated foods, and for notifying the public about adulterated human or animal foods; and would require FDA to implement uniform national standards and labeling for pet foods. The amendment includes elements of his proposed Human and Pet Food Safety Act of 2007 (S. 1274), introduced as H.R. 2108 by Representative DeLauro. The two lawmakers also have introduced more comprehensive bills (H.R. 1148/S. 654) to combine current federal food safety oversight under a new food safety administration.

Recent developments with food imports also have spurred calls for speedier implementation of mandatory country-of-origin labeling (COOL) for fresh meats, produce and peanuts, now scheduled to take effect on September 30, 2008. H.R. 357 and S. 404 would mandate COOL by September 30, 2007. (For further information on COOL, see CRS Report 97-508, *Country-of-Origin Labeling for Foods*).