was concentrated in the "hog belt" running from Ohio westward, centered in Iowa and Illinois. In 1981, of 58 million hogs in the U.S. inventory, fully 16 million were in Iowa. Nearby Illinois, Minnesota, Nebraska, and Missouri had 18 million head. Family farming predominated. With Iowa's nearly 90% land area considered arable, the swine effluent was handled for fertilizer, and otherwise disposed of. Porkprocessing plants were located throughout the region. Feed was grown likewise in the region. As of the 1970s, railroads still served farm needs for inputs and marketing.

Then, over the intervening 25 years, pork—and all meat processing—became highly consolidated under the control of very few global companies, which, in turn, either set up their own hog "factory farms," and/or dictated the terms (type, price) of animals they would buy. Thousands of Midwestern family farms went out of operation. At the same time, the world's largest pork processor, Smithfield, headquartered in Virginia, moved, with a few other multinationals, to set up gigantic hog operations in North Carolina.

Whereas in 1981, North Carolina had 1.98 million hogs, grown by family farmers throughout the coastal plains, today the state has 9.7 million hogs, mostly raised by Smithfield, and others in the consortia. Livestock feed is brought in from Brazil, through a new port the meatpacker consortia set up in Wilmington, N.C. Immigrant labor gangs tend the hog buildings. In the event any livestock disease outbreak occurs, the automatic result will be a hit on the national food supply.

The amount of swine effluent is so great relative to the arable land in North Carolina—more than half of the state is uplands and forest—that even if all the slurry of urine and feces is applied to the farm fields in the most high-tech, subsoil fashion, there is simply not enough surface area to accommodate the volume of swill. In June 1995, during flooding season, a huge dump of hog waste overwhelmed the New River.

In the Midwest, the former hog-producing counties have, overall, experienced a loss of family farms, infrastructure—rail, hospitals, urban centers—and are becoming depopulated. Iowa itself still has the same number of hogs, 16 million, as in 1981, but far more are produced either in larger family-run operations, where family members must work off-farm for needed income; or in mega-hog corporate production facilities. The surrounding states have 2 million fewer hogs than in the 1980s.

## Warning: 'Just-In-Time' Food Supply?

The implications of the decline in the U.S. domestic food production were the topic of a *Kansas City Star* feature article, posted on May 29 (kansascity.com), "Old Plains Ranching, Farming Traditions Disappearing," by Jack Coffman and George Anthan, longtime Midwestern farm state journalists. "We now have a just-in-time delivery system for food,' is the description for the vulnerability of the U.S. food supply to shortages, by Dr. William Heffernan, of the University of Missouri. 'Anything that disrupts that system, including a terrorist attack, we come up against it pretty fast.'"

## 'Fresh' Tomatoes: Over 30% Are Now Imported

by Marcia Merry Baker

By volume, more than 30%—and that share is rising—of fresh tomatoes consumed in America are imported, mostly from Mexico and two provinces in Canada. This results from the past 15 years of increasing "global sourcing," in which a network of international financial interests has dominated decisions about location of farm commodity production, labor rates of pay, technology, trade, transportation, and what people do or do not eat.

True, America has for decades been a net importer of fresh tomatoes, buying more, mostly from Mexico in December and January, than it exported, mostly to Canada. But as a share of U.S. consumption, this was no more than 5-10% as of mid-20th Century. In 1990, it was 19%. However, over the past 15 years, there has been a dramatic rise in fresh tomato imports from Mexico (both field grown and hot-house) and Canada (all hot-house), to the point of importing 7 out of the 19.4 pounds (8.8 kilograms) of fresh tomatoes consumed annually per capita.

This pattern is in complete contradiction to the actual agro-climatic potential of the continental United States, from which fresh tomatoes could easily be supplied domestically year-round. In only a couple of Winter months are protected conditions required.

When domestic output met consumption in past decades, railroads were utilized for farm-to-city transport, with truck gardening close-in around metro areas. Up through 1970, U.S. supplies of tomatoes and other garden crops—lettuce, celery, beans, cucumbers—were transported in bulk quantities by rail for long-haul to major metro centers. The California "lettuce trains" to the East are legendary. In New York City, for example, in 1970, there were more carlots of fresh vegetables unloaded by train, boat, and air, than by truck. No longer.

Nationally in 1970, the timing and source states of domestic commercial production of fresh tomatoes still reflected the profile of the country's growing seasons. As reported for 1970, in the 1973 U.S. Department of Agriculture *Statistical Abstract*, this fresh fruit was supplied by the following states: in **Winter**, Florida; in early Spring, Florida, California, and Texas; in **late Spring**, South Carolina, Texas, Georgia, and Louisiana; in **early Summer**, California, Alabama, New Jersey, Virginia, Arkansas, Tennesee, North Carolina, Missouri, Kentucky, and Ohio; in **late Summer**, Michigan, New York, Pennsylvania, Indiana, North Carolina, Ohio, Illinois, Connecticut, Massachusetts, Washington, and Colorado; in **early Fall**, California; in **late Fall**, Florida, Texas, and Hawaii. The

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total U.S. production of fresh tomatoes was 18.234 million hundred-weight (100 pounds).

Given the development of advanced cultivation methods of all kinds—"soil-less" (hydroponics), irrigation, protected

agriculture (plastic and glass hot houses), plasticulture, etc., domestic production could easily continue to meet growing consumption needs indefinitely. But not under the practices of the free-trade era.





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Two of six different kinds of imported tomatoes, on sale in a single Giant supermarket outside Washington, D.C. The Giant brand (left) is on a pint of "grape tomatoes," a variety (Pure Santa) promoted heavily over the past ten years, because it holds up well under the for-export plantation-cultivation in Mexico, and it tolerates long-distance shipping. Many of the recent new novelty tomatoes—cherry, cocktail, on-the-vine, etc., including hydroponic types—have been promoted for the same reason: They have the resilience to withstand free-trade shipping and handling. On the right are Canadian cocktail tomatoes, called Splendido (Santalina variety), produced and packed under the Sunset brand of Mastronardi Produce, Ltd., of Leamington, Ontario.



EIRNS/Stuart Lewis

A trademark "Heirloom UglyRipe" tomato (a traditional beefsteak variety), from Florida, distributed by Santa Sweets, Inc., a division of Procacci Brothers, Philadelphia, one of the largest growers and handlers of fresh tomatoes worldwide. Under a Federal Marketing Order, the UglyRipe variety shown is not permitted to go outside Florida from Oct. 10 to June 15, because it doesn't conform to uniform size for marketing. This is being contested.

Over the 1990s, U.S. imports of fresh produce, and also processed fruits and vegetables, soared, as tariffs and other trade restrictions were eliminated, in particular with Canada and Mexico. By 2003, fully 12% of produce was imported from Canada and Mexico. In the category of fresh tomatoes, the level reached 36% of U.S. consumption supplied by Mexico and Canada in 1998. In terms of money value, imports from Mexico account for about 70%, and those from Canada, 17%.

Accordingly, during just the five-year period 1992-97, when NAFTA kicked in, the number of U.S. farms producing tomatoes declined by 7%. The number of such farms in Florida dropped by 38% over that period.

One dramatic marker of this process of increased out-sourcing of the fresh tomato supply in the United States is the flow of hot-house tomatoes. **Figure 1** on p. 43 shows the locations of the main greenhouse centers of production of fresh tomatoes in North America. Huge high-tech growing operations are in British Columbia and Ontario, and more low-tech operations throughout Mexico. The facilities vary in size, but the com-

mon characteristics of this highly concentrated continental production are cross-border corporate operations, private investor financing, and tight control. Of all the greenhouse fresh tomato production in the United States, the four largest firms account for 67% of it, and are located in coastal California, Arizona, Texas, and Colorado. The largest year-round producer and marketer of greenhouse tomatoes in the United States is Eurofresh Farms, headquartered in Willcox, Arizona.

During the UN Development Decades, there were hopes and initiatives to apply hot-house technology to uplift agricultural methods and improve nutrition where most needed in the world. Even hydroponic livestock forage for small animals was produced economically in South Africa. These initiatives were crushed by the onset of globalization and the dictates of the GATT/WTO era. Technology and trade practices are now deployed, in effect, to undermine national economies. In Mexico, for-export farming operations have been set up to take advantage of low-wage labor, and exploit scarce water and other infrastructure. The shortfalls of food production for Mexican domestic consumption have led to extensive, needless hunger.

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