

AGRICULTURAL OUTLOOK



Economics Editor
Randy Schnepf (202) 219-1281
rschnepf@econ.ag.gov

Associate Editors
Anne B. W. Effland (202) 501-8448
Stacey Rosen (202) 501-8445

Managing Editor
Mary Reardon (202) 219-0566

Commodity Coordinators
Field Crops: Mark Simone
Livestock: Leland Southard
Specialty Crops: Charles Plummer

Art Director
Victor Phillips, Jr.

Statistical Coordinator
David Johnson (202) 219-0663

Design Assistance & Layout
Cynthia Ray, Susan DeGeorge

Chart Production
Wynnice Napper

Tabular Composition
Ciliola Peterson

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For more information, please contact Randy Schnepf at (202) 219-1281.**

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EU Enlargement . . . U.S.–Mexico Avocado Trade . . . the Grape Industry . . . & State Trading Enterprises

Ag Trade Prospects In an Enlarged EU

The prospective enlargement of the European Union (EU) into Central and Eastern Europe (CEE) could add as many as 100 million new consumers to the EU market and double the number of farmers, having potentially profound effects on global and U.S. agricultural trade. Ten CEE countries, including the Baltic states, have applied for EU membership—Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

Initial USDA analysis indicates that accession to the EU and subsequent implementation of EU agricultural policies will raise CEE agricultural output, particularly in the livestock sector, increasing demand for feedstuffs. Preferential CEE trade agreements with the EU, in addition to geographic ties, could limit U.S. trade potential in this growing market. But the expanding CEE feed market will create opportunities for additional U.S. corn and oilseed exports, and the region will be a strong magnet for U.S. investment in ag-related enterprises.

Ban Lifted on Mexican Avocados

The partial lifting of a longstanding ban on avocado imports to the continental U.S. from Mexico is viewed in some quarters as an early indicator of the U.S. approach to new disciplines on sanitary and phytosanitary (SPS) measures under recent trade agreements. The decision followed comprehensive study of the pest risks and reflects USDA's commitment to basing phytosanitary policy on sound science, and to adopting risk-reducing measures that are least trade restrictive.

Revision of Q56, the Fruit and Vegetables Quarantine, will allow shipments of avocados from certified groves in Mexico to be exported to 19 northeastern states and the District of Columbia from November through February, beginning in 1997. The opening amounts to less than 5 percent of the current U.S. avocado market.



Taiwan's Hog Disease: Ripple Effects

The recent outbreak of foot-and-mouth (FMD) disease in Taiwan has precipitated bans on imports of Taiwanese pork by several FMD-free nations. The FMD crisis will also mean some reduction in U.S. corn exports as Taiwan's pork production falls. The U.S. supplies over 90 percent of the corn used as feed by Taiwan's pork industry.

Reductions in U.S. corn exports are expected to be partially offset by a rise in domestic feed use as hog production expands, enhanced by increased export opportunities. In the wake of the FMD problem, U.S. pork exports are expected to rise, especially to Japan, Taiwan's largest market. Taiwan's loss in exports to Japan is expected to be about 705 million pounds of pork, and the U.S. is expected to capture nearly 40 percent of the gap.

Grape Consumption Strong

The U.S. is the world's third-largest grape producer, accounting for 10 percent of global output. Domestically, the U.S. grape industry for the last 10 years has logged the highest farm value of all

harvested fruits, nuts, and vegetables. Following production declines in 1996, grape industry sources from the three major producing states (California, New York, and Washington) indicate their 1997 crops appear to be in good condition.

Fresh grape consumption has been trending upward in the U.S. since the mid-1970's. Grape juice consumption and demand for American wines have also increased, although per capita growth in domestic wine consumption in the 1990's has been limited, as increased demand combined with unfavorable weather to push wine supplies below average. The U.S. remains a net importer of grapes for all uses except raisins, but the export share of domestic grape production has risen steadily from a 9-percent average in the 1970's to 17 percent in the 1990's, with last year's export value reaching \$209 million.

State Trading Enterprises & the WTO

Agricultural state trading enterprises (STE's) have been important players in world trade for decades. Over 30 member-countries have reported to the World Trade Organization (WTO) the combined presence of nearly 100 STE's in their agricultural sectors, and there is concern that some WTO member countries will use export-oriented STE's to circumvent Uruguay Round commitments and engage in unfair trading competition. The lack of transparency which characterizes the operations of STE's makes it difficult to determine whether they win sales because of true competitive advantage or because of practices such as excessive price cutting.

Among current WTO member countries, four STE's dominate the list of STE exporters when ranked by value of major agricultural commodities shipped—the Canadian Wheat Board, the New Zealand Dairy Board, the Australian Wheat Board, and the Queensland Sugar Corporation. Also sparking interest in STE's is the number of countries seeking accession to the WTO—e.g., China, Taiwan, Russia, and Vietnam—which use these enterprises to implement agricultural policies.

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Jack Harrison

Field Crops

Mother Nature Stirs Up Wheat Market

The wheat market has been on a wild ride this spring, with wheat prices rising sharply in mid-April following news of significant freeze damage in prime winter wheat growing areas in the Southern Plains, then partially falling back as crop prospects improved. The freeze curtailed what many observers thought would be blockbuster crops in Kansas, Oklahoma, and Texas. Excellent crop conditions in these states had pointed to a large boost in hard red winter wheat output from last year's drought-afflicted crop. Instead, USDA's first forecast of winter wheat production is up just 6 percent from 1996 to 1.56 billion bushels.

Also contributing to price fluctuation in recent months was delayed planting in the Northern Plains, where a large portion of the U.S. spring wheat crop is grown. Chilly temperatures, along with the extremely wet field conditions following spring storms and snowmelt, especially in the Red River Valley, slowed spring wheat planting in the region. Recent favorable weather has allowed farmers to catch up. As of May 25, farmers had planted 83 percent of the spring wheat crop, in line with the 5-year average.

With good planting conditions and warm weather, spring wheat plantings could increase from earlier expectations, offsetting the slow start to the planting season. Recent price strength in the wheat market may encourage spring wheat farmers in the Northern Plains to increase plantings. The first firm indication of spring wheat plantings will be published on June 30, in USDA's *Acreage* report. The first production forecast for spring wheat (based on surveyed yields and acreage) will be on July 11, 1997.

Assuming spring planting intentions (from USDA's *Prospective Plantings* released in March), as well as 5-year average yields and harvest-to-planted ratios for spring wheat, total U.S. wheat

production is forecast at 2.26 billion bushels in 1997, down 1 percent from last year. With larger beginning stocks and steady year-over-year imports, the U.S. wheat supply in 1997/98 is forecast to rise almost 3 percent. Ending stocks will build from last year. A rise in stocks relative to use is expected to pressure farm prices downward in the new marketing year that begins June 1. The season-average farm price of wheat is forecast at \$3.60–\$4.20 per bushel in 1997/98, down from \$4.35 in 1996/97 and \$4.55 in 1995/96.

Although the market has cooled since the freeze, prices are expected to be supported in 1997/98 by a moderately tight world situation. Combined production by the five major wheat exporters—the U.S.,

U.S. Field Crops—Market Outlook

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price	
	Planted	Harvested								
	—Mil acres —		Bu/acre	—Mil. bu —					\$/bu	
Wheat										
1996/97	75.6	62.9	36.3	2,282	2,748	1,298	985	465	4.35	
1997/98	69.2	61.0	37.1	2,261	2,817	1,260	1,000	557	3.60-4.20	
Corn										
1996/97	79.5	73.1	127.1	9,293	9,729	6,995	1,825	909	2.70-2.80	
1997/98	81.4	75.1	131.0	9,840	10,759	7,360	2,050	1,349	2.25-2.65	
Sorghum										
1996/97	13.2	11.9	67.5	803	821	550	215	56	2.30-2.40	
1997/98	10.9	9.8	67.6	665	721	424	200	97	2.00-2.40	
Barley										
1996/97	7.2	6.8	58.5	397	531	407	35	89	2.77	
1997/98	7.0	6.6	59.7	395	524	417	35	72	2.10-2.50	
Oats										
1996/97	4.7	2.7	57.8	155	322	245	3	74	1.95	
1997/98	5.3	3.2	58.0	187	361	280	3	78	1.40-1.80	
Soybeans										
1996/97	64.2	63.4	37.6	2,382	2,576	1,556	895	125	7.35	
1997/98	68.8	67.5	38.5	2,600	2,730	1,580	890	260	5.50-7.00	
Rice			Lbs./acre		—Mil. cwt(rough equiv.)—					\$/cwt
1996/97	2.82	2.80	6,121	171.3	206.9	104.7	78.0	24.2	9.85-10.05	
1997/98	2.88	2.82	5,762	162.5	199.2	106.6	71.0	21.6	9.75-10.75	
Cotton			Lbs./acre		—Mil. bales —					c/lb.
1996/97	14.6	12.9	707	18.9	22.0	10.9	7.0	4.1	69.50	
1997/98	14.5	13.3	670	18.5	22.6	11.0	7.3	4.3	*	

Based on May 12, 1997 *World Agricultural Supply and Demand Estimates*.

*USDA is prohibited from publishing cotton price projections.

See table 17 for complete definition of terms and data for prior years.

Economic Research Service, USDA

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Canada, the European Union, Australia, and Argentina—is projected to drop 6 percent. While gains elsewhere in the world nearly offset the decline for major exporters, ending stocks for the world will remain relatively low.

*Dennis A. Shields (202) 219-0768 and James Barnes (202) 219-0711
dshields@econ.ag.gov
jbarnes@econ.ag.gov*

For further information, contact:

Dennis Shields and James Barnes, domestic wheat; Ed Allen, world wheat and feed grains; Allen Baker and Pete Riley, domestic feed grains; Nathan Childs, rice; Scott Sanford and Mark Ash, oilseeds; Steve MacDonald, world cotton; Bob Skinner and Les Meyer, domestic cotton. All are at (202) 219-0840. **AO**

Livestock, Dairy & Poultry

Hog Disease in Taiwan Affects U.S. Pork & Corn Exports

The recent outbreak of foot and mouth disease (FMD) in Taiwan, which resulted in a ban on imports of Taiwanese pork by several countries, has focused world attention on Taiwan's pork industry. Pork dominates both meat production and consumption in Taiwan.

Before the FMD outbreak in early 1997, hogs were Taiwan's most important agricultural commodity, accounting for 29 percent of the value of livestock and crop production, and since the late 1980's the leading agricultural export commodity. Before the recent FMD bans, Taiwan was expected to export 360,000 metric tons of pork this year—28 percent of production.

For centuries hog production was an integral part of farming in Taiwan, absorbing family labor, waste foods, farm byproducts, and other surplus resources, and in return, providing supplemental cash income and manure for enriching the soil. Since the late 1960's, Taiwan's hog indus-

World Commodity Market Outlook

	Year	Production ¹	Exports ²	Consumption ^{1,3}	Carryover ¹
<i>Million tons</i>					
Wheat	1996/97	581.2	113.0	577.1	109.3
	1997/98	578.4	110.8	572.4	115.3
Corn	1996/97	588.8	68.0	570.2	84.6
	1997/98	598.5	71.7	591.3	91.8
Barley	1996/97	153.2	15.2	149.1	23.0
	1997/98	148.1	15.5	151.1	20.1
Rice	1996/97	377.4	18.5	375.8	51.8
	1997/98	377.3	18.5	377.5	51.7
Oilseeds ⁴	1996/97	257.8	45.4	216.7	17.5
	1997/98	273.0	NA	NA	NA
Soybeans ⁴	1996/97	132.5	34.9	114.7	14.2
	1997/98	NA	NA	NA	NA
Soybean meal ⁴	1996/97	91.0	32.7	91.3	3.3
	1997/98	NA	NA	NA	NA
Soybean oil ⁴	1996/97	20.4	5.9	20.5	2.2
	1997/98	NA	NA	NA	NA
<i>Million bales</i>					
Cotton	1996/97	88.0	26.7	86.4	37.5
	1997/98	87.5	27.2	88.5	36.5

NA = Not available.

1. Aggregate of local marketing years. 2. Wheat, July-June; coarse grains, October-September; cotton, August-July. Rice trade is for the second calendar year. All trade includes trade among countries of the former Soviet Union. All grain trade excludes intra-EU trade; oilseed and cotton trade include intra-EU trade. 3. Crush only for soybeans and oilseeds. 4. Brazil and Argentina adjusted to October-September.

Economic Research Service, USDA

try has undergone dramatic changes similar to those in the U.S. hog industry.

In 1960, about 94 percent of Taiwan's farms raised hogs, but with an average of only four head per farm. By 1995, only 3 percent of Taiwanese farms raised hogs, but the per-farm average had increased to 402 head. Although about two-thirds of Taiwan's hog operations had less than 200 head, larger farms with herds of over 1,000 head accounted for 57 percent of the total inventory—close to the 61 percent of inventory held in the U.S. by operations of that size.

This rapid growth (about 600 percent from 1960 to 1995) and accompanying structural transformation in the hog industry have brought significant changes in procurement of inputs by hog producers,

particularly feed. Rather than supplying their own feed, most producers have shifted to purchasing nutrient and formula feeds, of which imported coarse grains and soybeans are key ingredients. Currently, Taiwan produces only about 5 percent of its coarse grain requirements and less than 1 percent of its soybean needs. As a result, Taiwan has become a major market for feedstuffs.

Hogs account for most of the country's feed needs, with poultry a distant second. Corn is the dominant feed grain, and most corn—95 percent—is imported. Corn imports increased fourfold in the 1970's, then doubled during the 1980's. By the early 1990's, Taiwan's corn imports surpassed 5 million tons, hitting a record 6.3 million in the 1994/95 marketing year.

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The Nature of Foot & Mouth Disease

Foot and mouth disease (FMD) is highly contagious, affecting primarily cloven-hoofed animals (e.g., cattle, sheep, goats, hogs). The disease is characterized by the formation of blisters on the tongue, lips, cheeks, palate, and other tissues of the mouth (reducing appetite and hindering food conversion), and on the skin above the claws of the feet. The cause is a virus, which can be found in the blood and other bodily secretions, such as saliva, milk, and urine. The virus can be spread by many different carriers, including humans, flies, ticks, most meat products, manure, semen, feeds, water, and soil. Although deaths of adult animals from FMD are not ordinarily high, the infected animals are usually destroyed.

To avoid infecting their own herds, nations ban imports of live cloven-hoofed animals, and fresh, chilled, and frozen meats of those animals, from areas experiencing outbreaks of FMD. Under these bans, only canned and cured meats from susceptible animals may be imported from FMD-affected countries. Loss of fresh and chilled meat markets causes economic losses for countries where outbreaks occur.

The U.S. is the leading supplier of coarse grain (mostly corn) and soybeans to Taiwan, with market shares of over 90 percent for both commodities. In 1996, the U.S. exported 5.8 million tons of coarse grain and 2.6 million tons of soybeans to Taiwan, each accounting for about a tenth of total U.S. exports of those commodities. U.S. corn exports to Taiwan have averaged 212 million bushels per year in the 1990's, reaching 234 million bushels for the 1995/96 marketing year.

Growth in the hog industry has made Taiwan a major pork exporting country, with virtually all exports going to Japan. Exports of slaughter hogs began in the 1950's, but Taiwan remained a small exporter through the 1970's. After an outbreak of FMD in Denmark in 1982, Taiwan made large gains in the Japanese pork market, becoming the leading supplier with a 46-percent market share.

Taiwan's export situation is complicated because of intense competition and different marketing strategies among the many suppliers in Japan's lucrative pork market—2.05 billion pounds of pork imports, fresh and chilled, in 1996. Taiwan supplies all six parts of the hog carcass—butt, picnic, loin, tenderloin, belly, and ham—while the U.S. is primarily a supplier of major parts products like loins.

Taiwan has achieved growth in market share by becoming increasingly sophisticated in meeting Japanese consumer specifications. For example, some Japanese consumers have demonstrated a preference for Taiwanese pork, which tends to have a darker color and a sweeter taste compared with U.S. pork. Improved technology has also helped the Taiwanese to increase exports of higher valued fresh and chilled products. During 1978-84, fresh and chilled products accounted for only 8 percent of Taiwan's total pork exports. By 1992-95, these products accounted for about a third.

Because of recent declines in Japanese pork production, fresh and chilled imports have increasingly substituted for domestic pork in Japan's retail markets. Taiwan's geographic advantage has contributed to its dominance in supplying fresh and chilled products to Japan. However, the U.S. has been catching up by using improved technology and providing specific cuts for the Japanese table market. In 1996, Taiwan and the U.S. each supplied about half of Japan's 162,000-metric-ton fresh and chilled pork import market.

By March 20, Taiwan had already exported 88 million pounds (carcass weight) of the 794 million pounds it had been expected to ship to Japan in 1997. The imposition of bans on Taiwanese pork

resulting from the FMD outbreak has left a "gap" of approximately 705 million pounds in Japanese pork imports—roughly 235 million pounds of fresh and chilled, and 470 million pounds of frozen pork, based on Taiwan's recent export shares. USDA estimates that higher pork prices in Japan, Japanese food safety concerns, and possibilities for substitution will likely reduce fresh pork imports by 10 percent and frozen pork imports by approximately 30 percent. Thus, total Japanese imports for 1997 could be around 1.8 billion pounds, down 8 percent from the nearly 2 billion pounds forecast earlier this year.

Expectations are that the U.S. will gain up to 90 percent of the post-FMD 1997 *fresh* pork market in Japan, or up to 557 million pounds. Canada and Korea should account for most of the balance. The U.S. is expected to take a 20-percent share of the *frozen* market, or about 241 million pounds, with Denmark expected to take almost 50 percent and Canada and Korea sharing most of the remainder.

The impact of FMD is likely to be felt most in 1997; FMD-free producing countries are expected to increase supplies enough to stabilize prices in 1998. Taiwan's pork industry should re-emerge with larger, more coordinated production and processing units, but the industry is not expected to recover its full pre-FMD share of the Japanese market. Pork suppliers in competing countries will likely forge relationships that will permanently capture market share. The U.S., in particular, should gain market share for fresh and chilled pork.

Even before the outbreak of FMD, several factors challenged the future growth of the hog industry in Taiwan. With virtually all exports going to Japan, the industry was vulnerable to fluctuations in the Japanese pork market. Moreover, after three decades of rapid growth, the industry was faced with high land costs and labor shortages, as well as increasing domestic environmental concerns brought on by densely packed hog farms and years of environmental neglect. In addition, demand has been mounting from Taiwan's trading partners for agricultural trade

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U.S. Livestock and Poultry Products—Market Outlook

		Beginning stocks	Production	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price
								Total	Per capita	
		Million lbs.							Lbs.	\$/cwt
Beef	1997	377	25,293	2,330	28,000	1,910	375	25,715	66.7	66-69
	1998	375	24,906	2,400	27,681	2,140	350	25,191	64.7	70-76
Pork	1997	366	17,126	595	18,087	1,355	380	16,352	47.3	56-58
	1998	380	18,357	605	19,342	1,580	380	17,382	49.9	53-57
Broilers*	1997	641	27,199	3	27,843	4,835	700	22,308	72.3	c/lb. 59-62
	1998	700	28,953	3	29,656	5,025	750	23,881	76.7	58-63
Turkeys	1997	328	5,444	1	5,773	479	350	4,943	18.4	65-68
	1998	350	5,680	1	6,031	485	325	5,220	19.3	62-67
Eggs**	1997	8.5	6,531.7	5.0	6,545.2	263.0	12.0	5,369.9	No. 240.4	c/doz. 80-84
	1998	12.0	6,705.0	4.0	6,721.0	266.0	10.0	5,505.0	244.3	72-78

Based on May 12, 1997 *World Agricultural Supply and Demand Estimates*.

*Cold storage stocks previously classified as "other chicken" are now included with broiler stocks. **Total consumption does not include eggs used for hatching. See tables 10 and 11 for complete definition of terms.

Economic Research Service, USDA

liberalization before allowing Taiwan to join the World Trade Organization. Large commercial operations have benefited from trade barriers against pork imports. Liberalization would likely open up Taiwan's pork market to outside suppliers.

Taiwan is a critical corn market for the U.S., and the effect of the FMD outbreak on Taiwan's corn imports is a U.S. concern. The FMD crisis in Taiwan will mean some reduction in U.S. corn exports, but will be partially offset by increased domestic feed use as U.S. hog production increases to fill part of the export gap left by Taiwan. Timing of the outbreak is also limiting its impact on Taiwan's 1996/97 corn imports—half of the trade year (October-September) was complete before the problem developed.

USDA's forecast of Taiwan's corn imports for 1996/97, originally set at 6 million tons before the crisis, currently stands at 5.5 million. Despite the lower forecast—equivalent to 20 million bushels—Taiwan would still be the world's third-largest importer this year, behind Japan and South Korea.

Although Taiwan has canceled or delayed some corn shipments, it has continued to make new purchases for future delivery. Domestic pork consumption is high in Taiwan, and even with some FMD-related decline should remain strong enough in the 1997/98 marketing year to keep feed needs relatively high. Nevertheless, the trade impact is expected to be more apparent in 1997/98. USDA is projecting Taiwan's 1997/98 corn imports at 4.5 million tons, the lowest since 1988/89, and down 22 percent from the 1993-95 average of 5.8 million tons.

Leland Southard, hogs (202) 501-8553;
Pete Riley, corn (202) 501-8512
southard@econ.ag.gov
pariley@econ.ag.gov

For further information, contact:

Leland Southard coordinator; Ron Gustafson, cattle; Leland Southard, hogs; Mildred Haley, world pork; Jim Miller, domestic dairy; Richard Stillman, world dairy; Milton Madison, domestic poultry and eggs; David Harvey, poultry and egg trade, aquaculture. All are at (202) 219-0713. **AO**

Specialty Crops

Food Safety Concerns for U.S. Fruits & Vegetables

With growing awareness of food safety issues, the U.S. fruit and vegetable industry, consumer organizations, and government are reviewing various options to reduce the risks of foodborne illness from produce. One option for reducing risks is the adoption of a hazard analysis and critical control point (HACCP) system. Under HACCP, firms at various levels of the production and marketing chain examine their operations and identify food safety hazards and the specific steps or points that pose the greatest potential health risks. The firms then establish critical hazard limits, and procedures for monitoring and corrective action to ensure pathogen control.

Foodborne pathogens, mainly bacteria, parasites and viruses, can cause acute and chronic illnesses ranging from mild

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digestive problems to serious food poisoning, kidney failure, or even death. Food safety concerns regarding fruits and vegetables have been enhanced by recent highly publicized outbreaks of foodborne illness, such as the *hepatitis A* virus among schoolchildren in Michigan earlier this spring which was traced to frozen strawberries served in school lunches. An outbreak on the west coast last fall, involving the bacteria *E. coli* in unpasteurized apple juice, resulted in over 60 illnesses and one death. Recently passed laws require the U.S. meat, poultry, and seafood industries to adopt HACCP over the next several years (AO May 1996, July 1996).

If regulations are adopted by the produce industry, HACCP could change operating procedures at several levels in the fruit and vegetable production and marketing chain—in the field, packinghouse, processing plant, and in food-service and retail environments. But the initial focus would likely be on points where fruits and vegetables come into contact with soil (and hence, potential harmful bacteria) during production or harvesting. Also of concern are foodborne viruses, such as *hepatitis A*, which are usually a result of contamination by contact with an infected food handler or water or sludge contaminated with sewage. Under HACCP, imported fruits and vegetables, a substantial portion of which are supplied during the off-season, could also be required to meet some equivalent type of food safety monitoring.

Although contamination of produce can occur all along the marketing channel, it can often be traced to contact with soil and/or animal-manure fertilizer at harvest or at the packinghouse. While most fruits are normally harvested by hand and do not come into direct contact with soil, workers may scoop up fruit that has dropped to the ground before or during harvest. Animal-manure fertilizer has been cited as a source of bacterial contamination in unpasteurized apple juice and cider. Cider, considered the least profitable use for apples, is often made from fruit that has dropped from trees naturally.

Packinghouse operators (fresh market) and processors commonly rely on water

flotation baths to receive fruit. Fruit that has inadvertently been contaminated at harvest can pass through the system and potentially contaminate other fruit if the bathwater is not sterilized and is used to receive subsequent loads. Adding chlorine to water for sanitation and/or filtering the produce bathwater are techniques that reduce the risk of cross-contamination.

Some fruits and vegetables, before going to the fresh market, are given a cold-water shower or drench to remove field heat and thereby reduce perishability. Vegetables that may receive this cooling treatment include green beans, spinach, and carrots. The water used for cooling is often recycled to save on refrigeration costs, which can raise the risk of cross-contamination if previously rinsed produce was contaminated during harvest. Water sanitation procedures (e.g., chlorinated water) can lower the risk of contamination by pathogens for most shower-drenched vegetable products.

Some fresh-market fruits and vegetables, such as strawberries, raspberries, blueberries, grapes, melons, sweet corn, lettuce, broccoli, and cauliflower, are often packed in the field during harvest. Because field packing does not typically involve rinsing or washing produce before shipping to market, there is risk of contaminants reaching the consumer. As with most fresh produce, careful harvesting methods and washing can minimize product damage as well as contamination.

Improper treatment during marketing can also promote contamination of fresh fruits and vegetables. In the late 1980's, an outbreak of foodborne illness was traced to Texas-grown melons which had been cut and stored improperly on salad bars. Melons are naturally in contact with soil until the time of harvest. The restaurants' temperature and the melons' high sugar content encouraged high bacterial growth. The result was an outbreak of *salmonella* poisoning in several southern states. Careful washing of the melons before cutting is a critical control point for pathogen control.

The overall impact of HACCP on the fresh fruit and vegetable industries would

depend on the extent of any regulations or voluntary HACCP program adopted by firms. For many farm and packinghouse operations, standardized product testing and documentation are likely the biggest changes that HACCP would introduce. However, regulations could also require produce washing and/or water sanitation at packinghouse and/or field packing operations. In the case of field packing operations that do not already wash produce, such a requirement could add considerable cost, which would likely be reflected in retail prices for those products.

HACCP would probably affect the processing industry less than the fresh produce and nonpasteurized juice industries. Pathogen control is less of an issue in much of the processing sector because product sterilization is already part of the production process to preserve quality and reduce risks of foodborne diseases.

Fresh-cut produce—a rapidly growing segment of the fruit and vegetable market—has received considerable food safety attention. Fresh-cut produce includes salad vegetables like broccoli, cabbage, cauliflower, carrots, and lettuce, and fruit such as oranges, grapefruit, and melons. Because these items are considered to be a “ready to eat” product, consumers are less likely to wash the produce. Proper sanitation during preparation (at centralized distribution warehouses, food-service establishments, and produce departments of retail food stores), along with adequate refrigeration to prevent bacterial growth, reduces foodborne safety risks.

Charles Plummer (202) 219-0717 and
John Love (202) 219-1268
cplummer@econ.ag.gov
jlove@econ.ag.gov

For further information, contact:

Linda Calvin, Susan Pollack, and Agnes Perez, fruit; Gary Lucier, vegetables; Ron Lord, sweeteners; Doyle Johnson, tree nuts and greenhouse/nursery; Tom Capehart, tobacco; Lewrene Glaser, industrial crops. All are at (202) 219-0840. **AO**

Commodity Spotlight



Prospects Favorable For U.S. Grape Industry

The U.S. is one of the world's leading grape producers, accounting for 10 percent of the world's grape output—third largest after Italy and France. The U.S. grape industry is also a significant component of the domestic fruit and vegetable sector, with its farm value registering highest among all fruits, nuts, and vegetables harvested for the last 10 years.

During 1996, U.S. growers produced 5.54 million tons of grapes valued at \$2.2 billion, about 20 percent of the total farm value of fruit and nut production and about 11 percent of fruit, nut, and vegetable production. Orange production ranked second, with a value of \$1.9 billion, followed by apples, valued at \$1.8 billion.

USDA's National Agricultural Statistics Service surveys grape production in 13 states, but nearly 90 percent of the U.S. grape crop is produced in California. New York and Washington are the next-largest producers, each harvesting about 3 per-

cent of all domestic grapes. Grapes grown in these two states are used mainly for juice and wine production.

About 85 percent of domestic grape production is processed, nearly two-thirds of which is used in manufacturing wine. More than a quarter is dried for raisin production, while less than 10 percent is used for juice. Additional small quantities go into other processing uses such as jams and jellies. Less than 1 percent of processed grape output is canned.

Fresh grapes, although comprising a much smaller share of total production acreage and output, remain a vital part of the U.S. grape industry. For grapes sold in the fresh market, maintaining consistently high quality is a challenge. Higher production costs and higher product value of fresh grapes reflect production practices that are more intensive than for grapes grown for processing. In 1996, growers in California received \$718 per ton for fresh grapes, compared with \$410 for grapes used for wine and \$231 for those used for raisins. In 1996, 64 percent of the California grapes sold fresh were table varieties and 31 percent were raisin varieties. Wine-variety grapes made up the rest of fresh use.

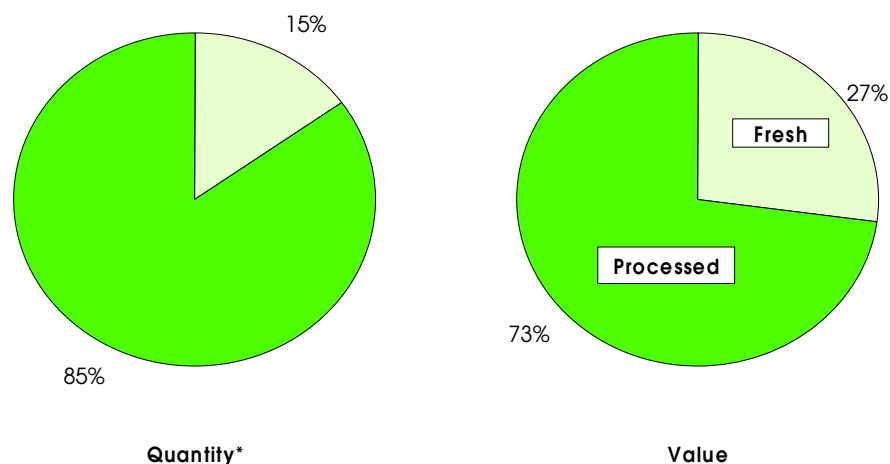
Large 1997 Crop Should Cool Prices

U.S. grape production used for fresh and processing markets in 1996 was 5.53 million tons, down 6 percent from 1995 and down 8 percent from the record 1992 crop. Lower yields resulting from unfavorable weather, primarily in California and Washington, accounted for most of the decline. U.S. fresh-market grape production declined nearly 2 percent from 1995's record output of 852,900 tons.

Reduced production, coupled with increased domestic and export demand in 1995 and 1996, helped strengthen fresh grape prices to growers, with the U.S. average rising from \$581 per ton in 1994 to \$620 in 1995, reaching a record \$727 in 1996. Prior to 1996, the highest price growers had received for fresh-market grapes was \$678 in 1992.

Production of processing grapes also declined in 1996, leading to grower prices 16 percent higher than in 1995, with the season average reaching \$348 per ton, the highest on record. Strong demand for U.S. wines also supported grape prices as an 8-percent decline in California's wine-type grape output led to some diversion of

U.S. Grape Production Is Used Mainly for Processing



*Fresh-weight equivalent.

Source: National Agricultural Statistics Service, USDA, *Noncitrus Fruits and Nuts Preliminary Summary*, January 1997.

Economic Research Service, USDA

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raisin, table, and juice-type grapes. Wine processors used 50 percent more raisin-type grapes and 3 percent more table-type grapes in 1996 than the previous year, although total grape use for wine rose only 1 percent.

Despite increased use for wine, the smaller 1996 U.S. grape crop reduced total processing use of grapes to 4.69 million tons, 7 percent below the previous year and the lowest since 1987. Although grape use for canning rose 3 percent from 1995, use of grapes for juice (including small quantities used for processing jams, jellies, etc.) declined 27 percent, and grapes used for raisins fell 17 percent.

Grape industry sources from the three major producing states (California, New York, and Washington) indicate that their 1997 crops appear to be in good condition. Weather has been relatively favorable for the new crop. There is strong potential for a larger California crop this year, while normal crops are likely for Washington and New York.

California grapevines are generally reported to have high, and large, cluster counts this season. Last year's dry, mild fall induced some early winter bud breaks, and the dry, mild weather this February and March was ideal for pollination and has also supported early and vigorous vine growth. Heavy rains in early January 1997 caused only minor damage to some grape growing areas in Napa Valley and San Joaquin Valley, while a frost in early April did not result in any significant damage. If the expected larger California crop is realized, grower prices will likely see some downward pressure.

Last year, grape production totaled 144,000 tons in Washington, down 44 percent from the state's 1995 crop. In contrast, New York's output of 189,000 tons was up 14 percent from the previous year. This year's relatively mild winter brought very little injury to grape crops in either state. Increased demand for wine grapes has encouraged vineyard expansion and new plantings in Washington. Peak harvest in the state is expected by mid-September. In New York, no bud breaks were reported as of the end of April, but blooms are expected to peak by mid-June.

Based on the bunches that have formed, expectations are that the New York crop will be of average size.

Fresh Grape Consumption On Upward Trend

Analysis indicates a long-term rise in per capita consumption of fresh grapes in the U.S. Part of this growth may be attributed to the heightened interest in healthful diets among American consumers and to increases in real disposable income. Domestic consumption more than doubled from 3.61 pounds per person in the marketing year 1975/76 to a record high of 7.94 pounds in 1989/90. This upward trend reversed in the early 1990's, reflecting several years of reduced production, but in 1995/96 a 5-percent increase in fresh grape production outweighed continued growth in exports, increasing available domestic table-grape supplies by 4 percent from the previous year. Fresh grape consumption recovered nearly 3 percent that season, and following a similar recovery in 1994/95, brought consumption to 7.52 pounds per person.

Trends in domestic consumption of processed grape products vary. U.S. grape juice consumption is generally up in the 1990's—consumption rose from 2.51

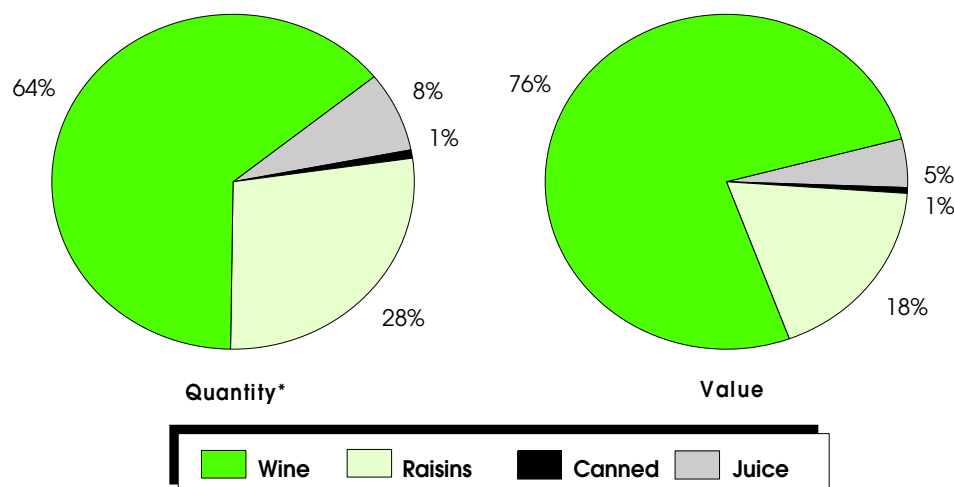
pounds per person (fresh-weight equivalent) in 1990/91 to 4.1 pounds in 1995/96. Larger shares of imports going to juice production in the 1990's compared with the past two decades helped meet both domestic and export demand for juice.

U.S. consumption of raisins, on the other hand, has remained relatively stable in the 1990's at 8-9 pounds per person (fresh-weight equivalent). The U.S. has seen limited growth in per capita wine consumption in the 1990's, as increased demand for American wines has combined with weather-induced production declines of U.S. wine-type grapes, to push wine supplies below average. Canned grape consumption has declined.

U.S. Exports Gaining on Imports

Most grapes produced in the U.S. are used domestically, and the U.S. remains a net importer of grapes for all uses except raisins. The export share of domestic grape supplies has risen, however, from an average of 9 percent in the 1970's to 12 percent in the 1980's and 17 percent in the 1990's. U.S. grape exports (both fresh and processed) increased 18 percent in value between 1990 and 1996, with last year's total reaching \$208.6 million,

Nearly Two-Thirds of Processing Grapes Are Used for Wine



*Fresh-weight equivalent.

Source: National Agricultural Statistics Service, USDA, *Noncitrus Fruits and Nuts Preliminary Summary*, January 1997.

Economic Research Service, USDA

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accounting for 9 percent of the value of domestic production.

Imports have made fresh table grapes available year-round in the U.S., with shipments mostly from Chile but also from Italy, New Zealand, Peru, and Brazil. Most of the U.S. domestic production is marketed from May through December. Beginning in December, as the U.S. supply begins to decline, shipments start to arrive from Chile. From January through April, Chilean grapes dominate the market. Since 1994, small shipments of grapes have also arrived from South Africa during the winter months.

In May and June, the U.S. fresh grape crop again becomes available in limited supply from the Coachella Valley in southern California. Grapes also are imported from Mexico during these months. Both grower and retail prices generally move down after May as domestic and Mexican supplies arrive. From August to November, the U.S. market experiences the largest available supply of fresh grapes, when central California grapes are harvested. Prices usually bottom in August when domestic production is highest, then peak in November as supplies diminish.

U.S. imports of fresh table grapes rose 8 percent between 1994 and 1995, but tighter supplies of Chilean grapes and a decline in Mexican production held growth to 3 percent between 1995 and 1996. With a large crop expected this year in Mexico, U.S. imports of Mexican grapes could increase in 1997. Coupled with the large crop expected in Coachella, an abundance of fresh grapes could be on the market this spring.

The U.S. wine industry

In an upcoming issue of *Agricultural Outlook*

U.S. Signs Grape Protocol with China

On May 14, 1997, the Secretary of Agriculture announced that China has agreed to open its markets to California fresh table grapes. California farmers can sell grapes to China as early as this year's crop, which will begin harvest in July. Access of U.S. fresh fruits to the China market has previously been limited to Red and Golden Delicious apples from Washington, Oregon, and Idaho, and cherries from Washington.

The Chinese prohibition on California fresh grapes had been based primarily on concerns about the Mediterranean fruit fly. Growers in California will be implementing a program of trapping in vineyards to monitor for any fruit fly problems. Chinese inspectors will visit California in mid-June to inspect the trapping program.

Initially, only grapes from Kern, Tulare, Fresno, and Madera Counties will be allowed into China. These four counties produce about 85 percent of California's fresh grapes. Kings County will probably soon be added to this group. Riverside County will be reconsidered for entry into the program in 1998.

Although phytosanitary issues have been resolved, California grapes will still face a stiff Chinese tariff of 55 percent with a 13-percent value-added tax. Despite the high tariff and undeveloped nature of the market, the California Table Grape Commission expects China to be an important market for California grape producers and plans to begin market development activities in China to expand consumer demand.

Linda Calvin (202) 501-8449
lcalvin@econ.ag.gov

Table-grape exports have been growing slowly throughout the nineties. The average annual growth rate of less than 1 percent reflects the strong impact of the Canadian market on total fresh grape exports. Shipments to Canada, the major U.S. market, fell an average of 6 percent per year between 1990 and 1996, as consumer demand reached saturation and began to decline. While shipments to Hong Kong, the second-largest U.S. grape export market in 1996, are only 44 percent of the amount sent to Canada, the Hong Kong market has been growing at 13 percent yearly and is expected to continue to grow.

Taiwan and the Philippines, ranked third and fourth in 1996 among U.S. grape export markets, have shown average annual growth rates of 6 percent and 29 percent since 1990 and are expected to continue strong. Other Southeast Asian markets, including Thailand, Malaysia, and Singapore, while currently small, are expected to increase in importance for U.S. table-grape trade in the future. The

recent opening of the Chinese market to California fresh grapes will likely provide an important boost to exports. The California Table Grape Commission is targeting the region for its export promotion program.

Latin America also offers potential growth for U.S. table-grape exports. Mexico slipped to become the fifth-largest market for U.S. table grapes in 1996 as it continued recovering from economic crisis. However, with U.S. grape exports to Mexico growing at an annual average rate of 67 percent this decade, exports should pick up as the country's economy improves. Among U.S. fresh fruit exports to Mexico in 1996, only apples and pears exceeded grapes.

Phytosanitary issues are preventing some South American countries from importing large amounts of U.S. fresh grapes. In the last year, however, Colombia, Argentina, and Chile have opened their markets. The continuing growth of South American

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economies in combination with the counterseasonality of U.S. and South American grape production could create an increasing demand for U.S. grapes.

The U.S. is the world's largest raisin producer and second only to Turkey in raisin exports. The United Kingdom (U.K.) has been the major market for U.S. raisins, receiving over 20 percent of total U.S. raisin exports throughout the first half of the 1990's.

In 1996, however, raisin shipments to Japan exceeded those to the U.K. If the Japanese market continues to grow 6 percent annually, as it has since 1990, it may become the major destination for U.S. raisins. Other Asian destinations have also shown rapid increases in demand for U.S. raisins, especially Hong Kong, Taiwan, and Singapore—areas of strong promotional efforts under USDA's Market Access Program. The U.S. does not import many raisins, but most of its imports come from Mexico and Chile.

The U.S. is a net importer of grape juice, with most coming from Chile and Argentina. Grape juice imports soared between 1995 and 1996—rising by over 150 percent—for several reasons.

Supplies were reduced by poor grape crops in Washington and Michigan, the major juice producing states, and by the diversion of juice grapes to fill a shortage of grapes for wine production. At the same time, a decrease in the domestic supply of apple juice, a substitute for grape juice, increased demand.

The U.S. does export some grape juice, although it constitutes the smallest component of U.S. grape product exports. Grape juice exports, however, are growing at a faster rate than both fresh grape and raisin exports. During the 1990's, grape juice exports increased at an annual rate of 6 percent in value and 4 percent in volume.

Canada is the major destination for U.S. grape juice. Unlike the Canadian markets for fresh grapes and raisins, which appear to have reached a saturation point, Canada's grape juice market is growing by 10 percent annually.

Japan is the second-largest market for U.S. grape juice exports, but following a rise in exports to Japan early in the 1990's, the market there has declined recently, reflecting the poor performance of Japan's economy during the last few years. U.S. grape juice exports to Japan in 1996 about equaled the amount shipped in 1990. Korean demand for U.S. grape juice, on the other hand, has grown rapidly in the 1990's, accounting for 20 percent of shipments in 1996.

Susan Pollack (202) 219-0505 and Agnes Perez (202) 501-6779
pollack@econ.ag.gov
acperez@econ.ag.gov



Upcoming Reports—USDA's Economic Research Service

The following reports will be issued electronically on dates and at times (ET) indicated.

June

- 13 *Cotton & Wool Outlook (4 pm)***
- Feed Outlook (4 pm)***
- Oil Crops Outlook (4 pm)***
- Rice Outlook (4 pm)***
- Wheat Outlook (4 pm)***
- 18 *Livestock, Dairy, & Poultry (12 noon)*
- 19 *Sugar & Sweeteners**
- 20 *Agricultural Outlook**
- 24 *U.S. Agricultural Trade Update****
- 25 *Europe Update**
- 26 *Agricultural Income & Finance**
- 27 *China**

*Release of summary, 3 pm.

**Available electronically only.

***Release of text only, 3 pm.

World Agriculture & Trade



Courtesy Canadian Wheat Board

State Trading Enterprises: Their Role in World Markets

The Uruguay Round Agreement on Agriculture, completed in 1994, subjects member countries to rules on market access, internal support, and export subsidies (AO December 1996). However, the lack of transparency in the pricing and operational activities of agricultural state trading enterprises (STE's) has generated growing concern that some World Trade Organization (WTO) member countries will use STE's to circumvent Uruguay Round commitments on export subsidies, market access, and domestic support.

Also sparking interest in STE's is the number of countries seeking accession to the WTO which use these enterprises to implement agricultural policies. Notable examples are China, Taiwan, Russia, and Vietnam. Little is known about the trading practices of STE's in these countries.

Agricultural STE's have been important players in world trade for decades. The rules of the General Agreement on Tariffs and Trade (GATT), which govern global trading in goods and services, have recog-

nized state trading enterprises as legitimate participants in international trade while establishing guidelines on their behavior.

These guidelines—contained in Article XVII of GATT 1947—require STE's to conduct their export or import trading activities according to the principle of nondiscriminatory treatment and “in accordance with commercial considerations.” The principle of nondiscriminatory treatment requires WTO member countries to extend the same trading privileges to all member countries.

The Uruguay Round Agreement defines STE's as “governmental and non-governmental enterprises, including marketing boards, which have been granted exclusive rights or privileges, including statutory or constitutional powers, in the exercise of which they influence, through their purchases or sales, the level or direction of imports or exports.”

Membership in the WTO requires that member countries annually provide information on commitments, changes in policies, and other related matters as required by the various trade agreements to the WTO—a process called “notification.” Based on the Uruguay Round's working definition of an STE, over 30 member countries have reported to the WTO the combined presence of nearly 100 STE's in their agricultural sectors. Examples include the Canadian Wheat Board (an exporter) and Indonesia's Badan Urusan Logistik or BULOG (an importer). In its notification to the WTO, the U.S. also reported the Commodity Credit Corporation (CCC). The number of reported STE's is likely to grow as member countries adhere more closely to the WTO definition of an STE.

Export-oriented STE's, the subject of this article, differ greatly from import STE's, especially in terms of related WTO rules. The chief concern with export-oriented STE's is whether they use their exclusive power of domestic monopsony (operating as the sole purchaser of domestic production) and/or export monopoly (operating as the sole exporter of domestic supply) to engage in unfair trading competition. The lack of transparency which characterizes the operations of STE's makes it difficult

to determine whether they win sales because of true competitive advantage or because of practices such as excessive price cutting. This contrasts with the explicit export subsidies of the U.S. and the European Union, which will be reduced significantly by 2001 in accordance with provisions of the Uruguay Round.

Grains and dairy products are the chief exports of the agricultural STE's reported to the WTO—16 STE's export wheat and 10 export dairy products. Two of the major export STE's—the Canadian and Australian Wheat Boards—accounted for more than 30 percent of world wheat exports from 1992 to 1995. By comparison, the U.S. and EU share 50-60 percent of world wheat trade.

For dairy product exports, STE's reported to the WTO by Australia, Canada, New Zealand, Poland, and the U.S. controlled 30-40 percent of world skim milk powder exports and about 25 percent of world cheese exports in 1993. The chief world cheese exporter is the EU with a 50-percent share of the world market in 1993. The EU also accounts for about 30 percent of world skim milk powder exports.

The Big Four Of STE Agricultural Exporters

Among current WTO member countries (excluding the U.S.), four STE's dominate the list of STE exporters of agricultural commodities. Ranked by value of major commodities exported, the Canadian Wheat Board is the largest STE, with exports averaging \$3.2 billion annually (wheat and barley combined) during 1992-94. The New Zealand Dairy Board is a distant second, with annual average exports valued at \$1.8 billion (1992-94), followed by the Australian Wheat Board at \$1.4 billion (1993-95), and the Queensland Sugar Corporation at \$925 million (1993-95).

The *Canadian Wheat Board (CWB)* was established under the Canadian Wheat Board Act of 1935 to market Western Canadian grain. The CWB ranks as the fourth-largest exporting company in Canada. It handles 96-99 percent of all Canadian milling and durum wheat

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exports, issues licenses for the remainder, and exports all Canadian barley. Wheat and barley exports accounted for 70 percent of Canadian wheat production and 25 percent of barley production during 1992-94.

The CWB is mandated to achieve three main objectives through its operations: to market as much grain as possible at the best price that can be obtained; to provide price stability to grain producers; and to ensure that each producer obtains an equitable share of the available grain market. On behalf of its producers, the CWB is authorized to buy, take delivery of, store, sell, transfer, and ship wheat and barley produced in Alberta, Manitoba, Saskatchewan, and the Peace River area of British Columbia.

The *New Zealand Dairy Board (NZDB)* was established in 1925-27 and reconstituted under the Dairy Board Act of 1961 to "maximize the income of New Zealand dairy farmers through excellence in the global marketing of dairy products." The Board markets all major dairy products for its member cooperatives, including butter, cheese, nonfat dry milk, whole milk powder, and most minor dairy products.

Exports of these products averaged 85-90 percent of production during 1992-94. The NZDB also advises the New Zealand government on trade issues and works hand-in-hand with it to combat protection in dairy import markets.

The *Australian Wheat Board (AWB)* was established under the National Security Act of 1939 "to purchase, sell, and dispose of wheat and wheat products, and handle, store, and ship wheat." The AWB currently operates under authority of the Wheat Marketing Act of 1989. It is the sole exporter of Australian wheat and flour. Australian wheat exports averaged more than 70 percent of wheat production in the 1993-95 marketing years.

The *Queensland Sugar Corporation (QSC)*, a state-level marketing board, operates under the authority of Australia's Queensland Sugar Industry Act of 1991, which took effect on July 15, 1991. (The QSC was established initially as the Queensland Sugar Board in 1923.) The QSC is responsible for the acquisition and storage of Queensland raw sugar, negotiating shipping arrangements, overseeing the marketing of exports, distributing the proceeds from sales, and coordinating production regulations.

All raw sugar exports from Queensland are undertaken by the QSC. Between 75 and 80 percent of Australia's raw sugar production is exported, and the remainder is refined primarily for domestic consumption, although private refiners now export small amounts.

A large number of *other* STE's export agricultural products valued between \$100 million and \$500 million during 1992-95. Commodities covered by these STE's include flowers, fruits, and meats, as well as dairy products and grains, from exporting countries as diverse as China, Israel, South Africa, and Turkey.

An even larger group of STE's exports products valued on average at less than \$100 million per year (1992-95). Many of the export STE's of Central European countries such as the Czech Republic, Poland, and Slovakia use subsidies to export agricultural products while allowing private traders to export unsubsidized products. The market stabilization agencies in these countries purchase and sell specific agricultural commodities to stabilize domestic commodity prices.

Four STE Agricultural Exporters Dominate the WTO List

Country/STE ¹	Commodity	STE annual average export value	Years
\$ million			
Over \$1 billion			
Canadian Wheat Board	Wheat	2,900	1992-94
New Zealand Dairy Board	Dairy products	1,800	1992-94
Australian Wheat Board	Wheat and flour	1,400	1993-95
Over \$500 million - \$1 billion			
Queensland Sugar Corporation	Sugar	925	1993-95
China:COFCO	Corn	704	1993-95
Over \$100 - \$500 million			
China: COFCO and other STE's	Sugar	368	1993-95
New South Wales Rice Board	Rice	361	1993-95
China: Native Products and Animal By-Products Import and Export Company	Tea	308	1993-95
Canadian Wheat Board	Barley	301	1992-94
South Africa Deciduous Fruits Board ²	Deciduous fruits ³	286	1992-94
China: COFCO	Rice	261	1993-95
New Zealand Kiwifruit Board	Kiwifruit	237	1992-94
South Africa Maize Board ²	Corn	194	1992-94
New Zealand Apple and Pear Board	Apples and pears	192	1992-94
South Africa Citrus Board ²	Citrus fruits	184	1992-94
Turkey Soil Product Office	Wheat and flour	157	1992-94
China: COFCO and other STE's	Soybeans	141	1993-95
Australian Dairy Corporation	Dairy products	131	1993-95
Israel Ornamental Plants Board	Cut flowers	129	1993-95

1. Except for China, all STE's listed were reported to the WTO by its member countries. China is seeking accession to the WTO. The value of exports for each is an average of the most recent annual export values reported to the WTO and, for China, an average of 1993-95 export values. The U.S. Commodity Credit Corporation is not included in this table. 2. South Africa is liberalizing the functions of some of its marketing boards and, in some cases, eliminating the exclusive authorities of marketing boards. 3. Apples, peaches, pears, plums, apricots, and grapes.

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Comparing the Major Export STE's

What are the similarities and differences among the four largest STE exporters? Which STE's control domestic markets as well as exports? Are export, import, or domestic policy tools important means of reinforcing the four STEs' control of export pricing? How do the four STE's differ in terms of products marketed and government ownership? To what extent do they impact international trade? An examination of their respective market environments as well as their institutional characteristics may address these questions.

Market regimes. Market regime refers to an STE's control over four activities: exports, domestic marketing, commodity procurement, and processing. If an STE regulates all these activities, its ability to impact international markets is likely to be much greater than if it controlled a portion, or none.

The CWB, NZDB, AWB, and QSC are all single-desk exporters—i.e., they have full control of exports of wheat (CWB and AWB), barley (CWB), dairy products (NZDB), and Queensland raw sugar (QSC). Some of these STE's do not handle exports themselves, but contract with private firms for export. For example, the QSC contracts with a private company, CSR Limited, to conduct its exports of Queensland raw sugar to all destinations except New Zealand.

Controlling domestic marketing may allow an export STE to price discriminate between domestic and foreign consumers, while control of commodity procurement for export enhances the STE's leverage in competing with domestic buyers for production. The CWB has exclusive authority to market wheat for human consumption and for malting barley. None of the other three major STE's is authorized as the sole domestic marketer in its respective country. All four STE's procure their respective commodities for export, which may represent the bulk of domestic production.

Of the top four export STE's, only the NZDB has some control over the processing of agricultural commodities. The NZDB controls the manufacturing of

Price Pooling—An STE Advantage

Price pooling allows an STE greater flexibility in export pricing relative to private grain trading companies, particularly when pool payments are underwritten by the government or the STE controls domestic supplies as well as exports. All four of the largest STE's practice some form of price pooling to ensure price stability for their producers and to control the marketing of their respective commodities.

Under *pooling*, producers covered by the CWB, for example, receive an initial payment equal to about 80 percent of the final projected price at or around the time the commodity is delivered to the CWB elevator. One or more additional payments are made to producers at a later date after the pool of agricultural product has been marketed, provided that the price received for the commodity is greater than the initial payment plus handling and administrative costs.

The Canadian government *guarantees the initial CWB pool payment*. If the initial pool payment to producers exceeds the eventual pool receipts less costs—a situation known as a “pool deficit”—the Canadian government is obligated to underwrite pool losses. The CWB deficit for its wheat pools totaled \$695 million in 1990/91, more than half the CWB deficit for its total wheat and barley pools for the period 1968 to 1991. The Australian government guarantees a percentage of AWB borrowing for its operations, but does not underwrite an initial price to growers, which can change throughout the season. The Australian government will discontinue the guarantees in 1999, when the AWB will restructure its Wheat Industry Fund as a capital base for commercial borrowing.

Under the pool system, prices to producers may be averaged across grades and quality differences, time of year, and in some cases, freight charges. The degree to which pools are segmented by grade, quality, marketing period, and location defines how much flexibility the STE has in pricing products for export. For example, the CWB averages prices for a wide range of marketing periods, grain qualities, delivery locations, and marketing costs. In contrast, the AWB operates special pools for 45 specific grades and classes of wheat, and discounts producer pool prices for freight and other marketing costs.

The NZDB bases its payments to member cooperatives on the manufacturing cost of the products supplied to the Board and the forecast milkfat and protein value of the products. NZDB member cooperatives may receive premiums for production of highly demanded products, or their payments may be discounted if the quality of the product delivered is below the contract specification. The QSC maintains two pools for raw sugar, which originally were intended to discount prices of sugar deliveries that exceeded pre-established delivery quotas. When the price differential between the two QSC pools is phased out after the 1998-99 marketing season, only one pool will remain.

dairy products by contracting with its member cooperatives in New Zealand for specific quantities of products for export, by encouraging production of preferred products through a system of premiums and discounts, and by establishing joint ventures and subsidiaries in many countries to further process products tailored to their specific markets. The NZDB advocates this system as a means of developing long-term relationships in for-

foreign countries, particularly countries that control import access such as the EU, Japan, and the U.S.

Policy regimes. STE's have access to various policy tools—export subsidies, pricing, supply controls, tariff-rate quotas, quantitative restrictions on trade, and marketing arrangements—that enhance their ability to compete in international markets. All these instruments are permitted

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under the Uruguay Round Agreement in one form or another, though some may have greater potential than others to distort trade.

Export subsidies allow STE's to price their products lower in export markets than their cost of procurement. None of the top four STE's uses explicit export subsidies to enhance their exports, although such subsidies have been used in the past. The last such explicit subsidy reported to the WTO, the Western Grain Transportation Act rail subsidy of Canada, was eliminated by the Canadian government on August 1, 1995. But questions persist about the practices that potentially give a competitive advantage to export STE's in world agricultural markets.

Secrecy in administering international market transactions coupled with *control of domestic and export markets* gives STE's the power to price discriminate—i.e., charge different prices in different markets for the same commodity. Price discrimination allows STE's to maximize returns on sales by charging a higher price to countries that are less price-sensitive and a lower price to countries that are more price-sensitive. Price discrimination is commonly practiced by commercial firms, although most commercial firms face greater risk than some STE's in procuring commodities for export.

Under the various policy regimes, *domestic price support programs* guarantee producers a price for their product. The Canadian, Australian, and New Zealand governments do not operate domestic price support programs. However, the Canadian government's underwriting of the CWB's initial pool payments can be considered a form of support to Western Canadian grain farmers.

Domestic supply control policies allow an STE to maintain domestic market power and control the level of product exported. The CWB manages supplies through a mixture of contract delivery calls (where producers under contract may be called to deliver all or a portion of their contracts by specified dates) and producers' delivery quotas.

Economic Characteristics of Major STE Exporters

STE characteristics	Canadian Wheat Board
Market structure	
<i>Control of exports</i> (exports directly or contracts with other firms for export)	96-99% for milling and durum wheat Issues licenses for remaining wheat 100% for feed and malting barley
<i>Export share of production</i>	70% for wheat; 25% for barley
<i>Control of domestic consumption</i>	100% of wheat for human consumption and of malting barley
<i>Control of processing</i>	None
Policy instruments	
<i>Export subsidies</i>	None
<i>Import quotas, tariffs, other nontariff barriers</i>	TRQ's for wheat and products, and barley and products Lower NAFTA duties for U.S. and Mexican products
<i>Domestic supply control</i>	Delivery quotas for orderly marketing
<i>Domestic price support</i>	Price pooling—government guarantees advance payments to wheat growers in CWB pools
<i>Long-term agreements with importer nations</i>	Annual supply agreements with Japan Five-year agreement with Indonesia for annual sales of 1-1.5 MMT of wheat
<i>Government guarantees for export credit</i>	Government guarantees for some portion of CWB loans to selected importers
Products	Milling wheat, durum wheat, feed, and malting barley
Ownership	Crown corporation governed by 5 government-appointed commissioners

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New Zealand Dairy Board	Australian Wheat Board	Queensland Sugar Corporation
100% of dairy product exports Authorized in 1992 to set conditions under which companies may export independently	100% of wheat exports	100% of Queensland raw sugar is exported by the QSC or its agent Refined sugar is exported by private firms
85-90%	70% of wheat	75-80% of Australian raw sugar production
None	No exclusive authority, but accounts for 75% of domestic sales	No exclusive authority QSC sells Queensland raw sugar to domestic refiners
Through member cooperatives in N.Z. and subsidiaries/joint ventures in foreign markets	Commercial joint ventures for milling and processing in foreign countries	None
None	None	None
None	Quarantine standards for imports, transportation, storage, and processing of grains	Tariff will be eliminated July 1, 1997
No domestic production controls	No control of domestic supplies	Acreage allotments which no longer constrain supplies
Price pooling—equates domestic prices with export returns by establishing national prices to guide domestic marketing decisions No government underwriting of losses	Price pooling for 45 grades and classes Pools may be closed and reopened at lower prices Government will guarantee loans for AWB operations until 1999	Pool pricing for Queensland raw sugar by grade No government underwriting of pool losses
No long-term agreements Subsidiaries establish long-term relationships with importers	Examples: Japan, 900,000 MT's for 1997 China, 3 million MT's for 1996-98	Negotiates and signs long-term agreements with importers
None	Semi-private agency issues guarantees for AWB loans to selected importers	None
Major dairy products—butter, cheese casein, nonfat dry milk, whole milk powder, and minor dairy products	Wheat (exclusive exporter), field peas, chick peas, oats, rye, sorghum, lupins, fava beans	Queensland raw sugar
Producer-owned board	Commonwealth corporation run by producers	Incorporated in Queensland and financed by producers

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The QSC, prior to 1991, limited Queensland raw sugar supplies by establishing a maximum amount of sugar that a cane mill could deliver to the QSC. Any additional sugar delivered to the QSC would receive a lower price. The QSC's control of raw sugar supplies no longer binds the quantity of raw sugar produced, since the Queensland government expanded the amount of land assigned to the production of raw sugar in Queensland and reduced the price differential between raw sugar delivered under the quota and outside the quota. This price differential will be eliminated after the 1998-99 marketing season. Neither the NZDB nor the AWB controls domestic acreage or production.

Import tariffs and tariff-rate quotas reinforce an STE's domestic market power, particularly when they are administered by an STE. However, Canada, New Zealand, and Australia have few import barriers to reinforce the authority of the CWB, NZDB, AWB, and QSC.

In Canada, the Department of Foreign Affairs and International Trade, not the CWB, administers WTO tariff-rate quotas for wheat and wheat products as well as for barley and barley products. In addition, Canada's duties for imports of U.S. or Mexican products have been lowered or eliminated under the North American Free Trade Agreement. New Zealand has no import barriers for dairy products. Australia maintains quarantine standards for import, transportation, storage, and processing of grains. Australia also has an import tariff for sugar, although it will be removed on July 1, 1997.

Lastly, all four top STE's use either *long-term supply agreements or export credits and credit guarantees* as export enhancement tools in international markets. For example, the CWB signs annual supply contracts with the Japan Food Agency for wheat and barley, and has agreed to supply Indonesia with 1-1.5 million tons of wheat annually for 5 years starting in 1996. The Canadian government guarantees some portion of CWB loans to selected importers. The Australian Export Finance Insurance Corporation (EFIC, a

semi-private agency) also covers some portion of the loan principal or the export value of loans to selected importing countries. EFIC offers similar services to private exporting firms.

Product regimes. Product regime is another indicator of a firm's capacity to control trade. Presumably, if an STE has exclusive authority to trade in several products, it has more leverage in manipulating markets through cross-subsidization between products and in price discounting of selected products.

The CWB, NZDB, and AWB each exports more than one product. The CWB controls exports of milling and durum wheat, feed barley, and malting barley, although returns for each type of wheat and barley are averaged in separate pools. The AWB is the exclusive exporter of wheat but competes with other exporters to trade in other Australian grains. The AWB also purchases other countries' grains to maintain its standing as a consistent supplier during periods of drought in Australia. The NZDB exports a variety of brand-label and generic dairy products. Only the QSC exports a single product—raw sugar.

Ownership regimes. The ownership structure of an STE can impact international trade in several ways. For instance, a government-owned agency or corporation might be more concerned with price stabilization and producer income support than with "commercial" objectives. But government ownership is fast fading for all four major export STEs', which will place more responsibility for their financing in the hands of producers, and could discontinue government underwriting of pool deficits to support farm prices. In some cases, producers who believe that they are not adequately served by the STE's marketing systems are pressing for reform. All four STE's, however, have made clear the benefits of single-desk exporting and are unlikely to relinquish their status.

The CWB, incorporated in 1935 as a Crown Corporation, is governed by five Commissioners who report to Parliament through Canada's Minister of Agriculture

and Agri-Food. A farmer-elected CWB Advisory Committee advises the Board on issues and policy matters dealing with its operations, but has no control over the Board. Legislation was introduced last year to replace the CWB Commissioners with a producer-elected board of directors in order to increase the CWB's accountability to western Canadian producers. Before the legislation was passed, however, new national elections were called for June 2. All pending legislation was erased from the record and will need to be re-introduced after the new Parliament is formed.

The ownership structure of the NZDB is changing rapidly in the wake of recent mergers between the NZDB's member cooperatives. Two of the NZDB's eleven member cooperatives now account for more than 75 percent of the milk processed for export. In addition, the NZDB is now required under the Companies Act of 1993 to adhere to New Zealand's new laws for private firms.

The AWB, a Commonwealth corporation directed by one government official and eight wheat industry officials, is expected to be privatized on July 1, 1999, when tradeable shares of the AWB's Wheat Industry Fund (currently financed by assessments on Australian wheat growers) will be issued to Australian wheat growers and nontradeable shares may be issued more broadly to the public. The QSC, incorporated in Queensland, is run by a board of nine private-sector members.

Although the four major STE's are well established, a growing number of STE's in prospective WTO member countries are likely to come under scrutiny through the accession process. With this in mind, several countries, including the U.S., continue to express interest in greater transparency of the activities of STE's.

Karen Ackerman (202) 501-8511, Praveen Dixit (202) 219-0654, and Mark Simone (202) 219-0823

ackerman@econ.ag.gov

pdixit@econ.ag.gov

msimone@econ.ag.gov

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California Avocado Commission

USDA Lifts Import Ban On Mexican Avocados

The U.S. decision to partially lift a long-standing ban on avocado imports from Mexico to the continental U.S. is viewed in some quarters as an early indicator of the U.S. approach to new disciplines on sanitary and phytosanitary measures under recent trade agreements. After 6 years of carefully evaluating the pest risks associated with importing Mexican avocados, USDA's Animal and Plant Health Inspection Service (APHIS) announced in February that it would allow entry of some Mexican avocados into the continental U.S. for the first time in 83 years.

Revision of Q56, the Fruit and Vegetables Quarantine, will allow shipments of avocados from certified groves in Mexico to be exported to 19 northeastern states and the District of Columbia from November through February, beginning in 1997. The public comment period that preceded the APHIS ruling yielded a wide range of opinions from various stakeholders on the advisability of revising Q56.

California and Florida avocado growers vigorously opposed entry of Mexican avocados. Representatives from the avocado industry acknowledge that wholesale prices for U.S. avocados are well above those for export-quality avocados from Mexico, but argue that the ban shields them from risk of pest infestation rather than competition.

On the other hand, U.S. agricultural exporters expressed concern that failure to revise Q56 would establish a stringent regulatory standard for risk management that would subsequently be adopted by other countries restricting access for U.S. exports of wheat, citrus, apples, peaches, cherries, and other products to foreign markets. Elected officials from some non-approved states have expressed disappointment that their constituents would not have access to Mexican avocados, while brokers and shippers in border states have noted that partially lifting the ban would benefit their operations.

The revision of Q56, with its geographic and seasonal restrictions on Mexican avocado imports, will open less than 5 percent of the current national market to Mexico. Nonetheless, interest in this decision was heightened by the perception that it was an important indicator of how the new sanitary and phytosanitary (SPS) disciplines would guide U.S. import policy decisions.

Along with other major agricultural exporting nations, the U.S. strongly advocated international rules for the use of SPS measures in negotiations for the North American Free Trade Agreement (NAFTA) and the Uruguay Round Agreements (URA) of the General Agreement on Tariffs and Trade. The eventual decision to allow limited access to the U.S. market for some Mexican avocados after comprehensive study of the pest risks reflects USDA's commitment to basing phytosanitary policy on sound science, and to adopting risk-reducing measures that are least trade restrictive. These two principles are found in both trade agreements.

The Scientific Basis For Revising Q56

U.S. phytosanitary officials originally banned entry of Mexican avocados in 1914 when seed weevils—pests that destroy the seed and contaminate the flesh—were discovered in Mexican groves. During the 1970's, the government of Mexico twice petitioned USDA to lift the ban on avocados produced in certain regions, but U.S. authorities were not persuaded that the fruit could be safely imported.

In 1990 Mexico renewed its request, following several years of an export registration program administered by its plant quarantine authorities. The program had allowed participating Mexican growers to export avocados to Asian and European markets. In the view of Mexican phytosanitary officials, modern pesticides and cultural practices used in the registered groves had eliminated the rationale for total U.S. prohibition on Mexican avocados.

APHIS based its 1997 decision to modify Q56 on the results of research undertaken by USDA's Agricultural Research Service, as well as the results of its own quantitative risk assessment of nine "pests of quarantine significance." A quarantine pest is defined by the North American Plant Protection Organization as "a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled."

APHIS studied the risks associated with the introduction of eight species of pests which are not present in this country. These included five species of "host specific" pests that attack only avocados, and three species of fruit flies. It also evaluated risks posed by a fourth species of fruit fly, *Anastrepha ludens* or Mexican fruit fly, which is present in this country (Federal or state authorities operate pest management programs in those areas to mitigate the risks).

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Will Pests Be Imported Along with Avocados?

APHIS's risk assessment results indicated that with no regulatory controls except for standard port-of-entry inspections, a stem weevil outbreak might occur every 7 months, a fruit fly outbreak might occur once every 72 years, a seed weevil outbreak might occur every 95 years, and a seed moth outbreak might occur every 355 years.

The next step for APHIS was to evaluate the risks posed by importing Mexican avocados under a systems approach which featured the following safeguards.

- *Host resistance to fruit flies.* Fruit fly infestation of the Hass avocado is not known to occur outside the laboratory.
- *Field surveys* for stem and seed weevils and fruit flies. Orchards will receive or be denied certification for export on the basis of survey results. Surveys must show municipalities to be free of targeted seed pests at a 95-percent confidence level.
- *Trapping and field bait treatments* for fruit flies.
- *Field sanitation practices*, including routine removal of fallen fruit and pruning, to decrease the chances of weevil or fruit fly establishment.
- *Post-harvest safeguards*, such as tarps to cover fruit, and structural requirements for packinghouses (e.g., screens and double doors) to guard against fruit flies and other hitchhiking pests.
- *Winter shipping* to decrease the probability of escape and survival of hitchhiking pests.
- *Packinghouse inspection and fruit cutting* to detect weevils or fruit flies. If any pests are detected, the entire shipment will be rejected.
- *Port-of-arrival inspection* of fruit and certification documents.
- *Limited distribution* to the District of Columbia and 19 northeastern states: Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, West

Virginia, Virginia, Ohio, Michigan, Wisconsin, Illinois, Indiana, and Kentucky. This reduces the likelihood that transported pests will survive, because of cold temperatures and the lack of suitable hosts in these states between November and February.

APHIS's quantitative risk assessment indicated that the statistical probability of avocados imported under this regulatory regime causing a seed pest or fruit fly outbreak would be less than once every 1 million years. A stem weevil outbreak might occur once every 11,402 years under this regulatory regime, according to APHIS's analysis.

Critics of this systems approach argue that it will not provide sufficient protection from the risk of pest infestation because of the economic incentives for Mexican producers and U.S. shippers to deviate from this regime, and because effectively monitoring compliance with the safeguards will require increasingly scarce public-sector resources. In response, USDA's plant health officials point out that administrative details of the program reduce or eliminate incentives to cut corners, while providing support for effective surveillance.

For example, the incentive to supplement shipments from approved orchards with avocados from other groves is diminished by the fact that if a seed pest is detected in a shipment, exports from the entire municipality will be cut off until eradication efforts have been successfully completed. Similarly, U.S. shippers who might be tempted to transship Mexican avocados from the northeastern states to points further west or south will find that in order to escape detection by USDA's Agricultural Marketing Service inspectors at terminal markets they would first have to remove a sticker from each individual avocado that indicates the fruit's origin.

In general, the fact that the Mexican industry is required to establish a trust fund that pays for on-site monitoring by APHIS employees at each stage of avocado production and distribution in Mexico will make it substantially more difficult for growers, packers, or shippers who might want to circumvent the safeguards.

First, APHIS assessed the probability of infestations *without* any regulatory controls beyond standard port-of-entry inspections. It then evaluated the efficacy of a "systems approach" to mitigate the risks of pest infestations. A systems approach comprises a sequential implementation of safeguards—e.g., a requirement to ship the fruit in sealed, refrigerated containers—which are designed to progressively reduce the likelihood of introducing injurious pests to an insignificant

level. Systems approaches are considered when an exporting region does not qualify as a pest-free area, and when post-harvest treatments to eradicate the pests degrade the fruit or leave unacceptable chemical residues.

The outcome of APHIS's quantitative risk assessment of a systems approach with nine specific safeguards indicated that Mexican avocados imported under this regulatory regime posed an insignificant

pest risk. The regime allows Mexico to export the Hass variety of avocado—a variety which exhibits a natural resistance to fruit fly infestation prior to harvest—if stringent criteria are met for monitored insect population levels; for harvesting, packing, and shipping practices; and for inspections.

Geographic and temporal restrictions on shipments of Mexican avocados constitute two other important safeguards that

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further diminish the likelihood that quarantine pests could become established in the U.S. A hitchhiking pest which arrives in cold weather thousands of miles away from suitable host material would be unlikely to survive and become established in the importing region, which was an important factor in USDA's 1993 decision to allow Mexico to ship Hass avocados to Alaska.

The U.S. is not the only country willing to rely on a systems approach to mitigate plant pest risk. The U.S. exports citrus to Japan, plums to Mexico, and apples and pears to Taiwan under protocols that specify different systems approaches to minimize plant pest risk. APHIS also uses systems approaches to facilitate interstate commerce. For example, citrus fruit grown in areas of Texas that are seasonally infested with the Mexican fruit fly can be shipped to markets throughout most of the continental U.S. under the terms of a systems protocol (which identifies the requisite steps for mitigating risk).

Economic Impacts Of Revising Q56

Mexico's avocados are expected to be competitive in the U.S. market. Mexico is the world's leading avocado producer, accounting for about 40 percent of the world's production. Mexican growers typically produce between 700-800,000 tons of avocados each year, about four times the amount produced by the U.S. industry. However, most of Mexico's avocados are produced for the domestic market: their size, appearance, and provenance (from areas where pest risk cannot be satisfactorily mitigated) make them unsuitable for the international market. As a consequence, Mexican domestic avocado prices are substantially lower than international market prices, and Mexicans consume more than 95 percent of the domestic crop each year.

Even so, Mexico is still the world's second-largest avocado exporter, trailing Israel but ahead of the other four major exporters—South Africa, Spain, Chile, and the U.S. According to a study published by the American Farm Bureau, Mexico's ability to compete in international markets stems from land, labor, and water costs that are lower than its

competitors' and substantially lower than costs in California, which produces about 90 percent of the U.S. avocado crop.

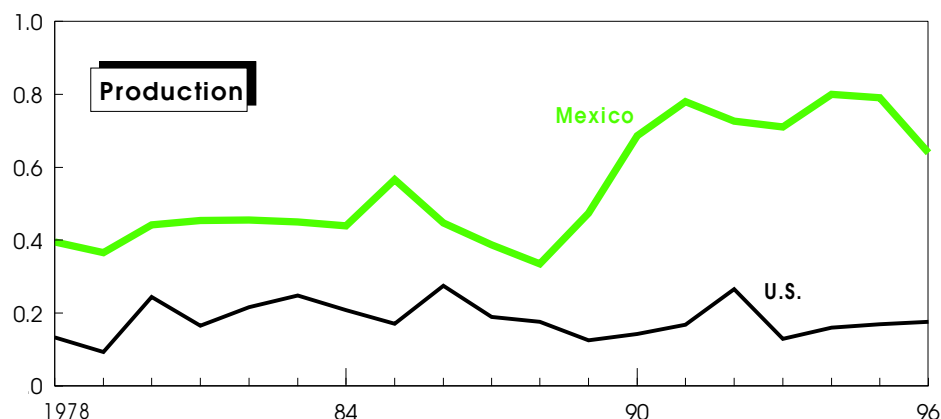
The cost differentials are reflected in a comparison of the wholesale price for California Hass avocados in New York City with the price of Mexican Hass avocados in Montreal, the closest terminal market to New York City which currently allows sales of Mexican avocados. USDA's Agricultural Marketing Service reports that the lowest quoted wholesale

prices for Mexican Hass avocados in Montreal in January, February, November, and December of 1995 ranged from \$0.18 to \$0.23 per pound, while the lowest quoted wholesale prices for California Hass avocados ranged from \$1.65 to \$2 per pound.

A USDA Economic Research Service study reports that U.S. avocado prices fluctuate markedly between years. Nonetheless, these price data suggest that Mexican growers will be able to

Mexico's Avocado Production Tops U.S. Output By Four to One . . .

Million tons

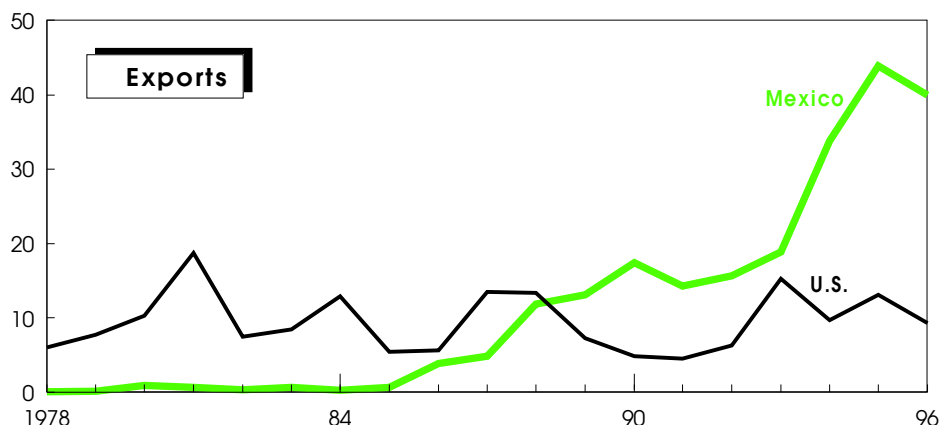


1996 forecast.

Sources: Agrostat, U.N. Food and Agriculture Organization; Foreign Agricultural Service, USDA.

. . . and Its Export Volume Is Also Nearly Four Times Larger

1,000 tons



1996 forecast.

Sources: U.N. Food and Agriculture Organization; U.S. Customs Service; Foreign Agricultural Service, USDA.

Economic Research Service, USDA

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profitably export avocados to the northern region of the U.S. even though they must pay a tariff of 3.58 cents a pound—which under NAFTA will be gradually phased out by 2003.

The segment of Mexico's industry that will be competing with U.S. growers is located in Michoacán, a state in southwest Mexico. Although Michoacán accounts for two-thirds of Mexico's output, only a small fraction of the industry there participates in the export registration program administered by Mexico's plant protection agency. These export-oriented Mexican growers have chosen to incur the additional costs of sophisticated grove management, packing, and shipping practices, in order to gain access to markets in Europe, Canada, and Japan.

This segment of the Mexican avocado industry planted new groves throughout the 1980's, principally with the Hass variety (the variety that accounts for 85 percent of Californian production). These trees have reached full bearing potential, heightening Mexico's interest in finding additional export markets.

The impact on the U.S. industry of allowing seasonal imports of Mexican avocados will be mitigated by the fact that Mexican growers will be competing with foreign as well as domestic sources of supply in the northeastern avocado market during the winter shipping season. The U.S. is a net importer of avocados, typically exporting approximately 5 percent of domestic production while importing approximately 10 percent. Chile exports more avocados to the U.S. than any other country, and in recent years has been the dominant supplier to the northeastern market during these 4 months.

California is the second-largest supplier in this market, although its winter shipments to northeastern markets never totaled 5 percent of California's output during the 1990-94 period. The Northeast is not the primary destination for California Hass avocados; approximately 80 to 90 percent of California's production is typically shipped to states outside the designated area. Moreover, the November-February period falls outside the peak harvesting

and shipping season for California Hass avocados—about 65 percent of the crop is sold between March and August.

APHIS's analysis of the economic impact of the Q56 revision supports the view that the regulatory change will have a limited impact on Californian avocado producers. APHIS analyzed the impact under different scenarios, varying the quantity of avocados Mexican growers would divert from other foreign destinations to the U.S. and the quantity of domestic avocados the U.S. industry would divert from the northeastern region to the nonapproved states. For example, if Mexican producers redirected 30 percent of the annual average of 1990-94 avocado exports to the approved states during November-February, consumers would benefit since prices in the approved and nonapproved states would fall by 25 and 2 percent. Producer losses would total approximately \$3.9 million.

APHIS's analysis indicated that estimated grower losses ranged from \$1.4 to \$6.4 million under the different scenarios, which represented 0.5 to 5.4 percent of the farm value of the California Hass avocado crop during the 1990-94 period. APHIS's analysis also indicated that estimated consumer gains could range from \$3.3 to \$19 million under different import scenarios. Under all scenarios, estimated consumer gains were larger than producer losses, with net economic benefit estimates ranging from \$1.9 to \$12.5 million.

The revision of Q56 is expected to have an even smaller economic impact on growers in Florida and Hawaii, which account for approximately 10 and less than 1 percent of U.S. avocado output. Florida growers are generally the third-leading source of supply in northeastern markets between November and February, but market statistics indicate there is little substitution in consumption between the larger green-skinned avocado varieties produced in Florida (and California) and the higher priced Hass avocado. Consumer willingness to pay a large price premium for Hass avocados has been observed in terminal markets by analysts for numerous years, suggesting that consumers have a strong preference for Hass avocados over other avocado varieties.

High humidity levels in Florida prevent producers from growing the higher priced Hass variety. Instead, Florida primarily supplies a niche market of Central American and Caribbean immigrants on the east coast who prefer the larger green-skinned varieties.

A phytosanitary quarantine prevents Hawaiian producers from shipping their avocados to the mainland, so seasonal foreign shipments of Hass avocados to the Northeast will have no effect on that segment of the domestic industry.

New Disciplines on Sanitary & Phytosanitary Measures

Following APHIS's proposal to revise Q56, the agency held a series of hearings across the U.S. in 1995 to elicit comment from the public, which included risk assessment experts and university entomologists as well as growers and consumers. APHIS also solicited written remarks during an extended 105-day official comment period. A number of respondents expressed concern that APHIS appeared to have a "new mandate" under the recent trade liberalization agreements to facilitate international trade, a departure from its historical mandate to prevent the introduction and establishment of quarantine pests. Others posed a more direct question, asking if the Q56 revision "resulted from" NAFTA.

Disciplines on the use of sanitary and phytosanitary (SPS) measures were included in the URA and NAFTA to protect and extend the degree of agricultural trade liberalization, at the insistence of major agricultural exporting nations, including the U.S. Exporting countries were concerned that, with the trade agreements effectively disciplining the use of other tariff and nontariff barriers to agricultural exports for the first time, importing countries would resort to the disingenuous use of health and safety measures to protect their producers from competition. While recognizing that each country has the sovereign right to adopt and enforce measures necessary to protect human, animal, or plant life or health, the agreements require that these measures adhere to certain principles.

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The principal SPS articles in the URA and NAFTA lay out specific requirements for these measures to be:

- *scientifically based*—SPS measures should be based on an explicit scientific assessment of risks;
- *nondiscriminatory*—no variation should be applied among trading partners or between domestic and foreign goods except as justified by differences in assessed risks;
- *least trade restrictive*—although each country has the sovereign right to determine what level of SPS protection is acceptable, it should take into account the objective of minimizing negative trade effects; and
- *transparent*—governments must notify other countries of SPS measures which restrict trade and must respond to trading partners' requests for additional information.

Another article in the trade agreements provides for *regionality*—regulatory authorities must allow imports from pest- or disease-free *areas* (or areas where the prevalence of pests or diseases is so low as to pose insignificant risk) *within* countries.

If an exporting country successfully challenges an SPS measure that violates one or more of these articles before a NAFTA dispute settlement panel, the importing country must either rescind the measure or compensate the trading partner for the amount of trade lost.

In the view of the U.S., codifying SPS principles and practices in the URA and

NAFTA requires U.S. trading partners to adhere to the same professional standards as APHIS when formulating SPS policies. Since Congress first delegated the authority to USDA in 1912 to prohibit or restrict entry of foreign products to guard against quarantine pests, SPS decisions by the professional staff of APHIS (and its institutional predecessors) have always been based on the latest available scientific evidence on the risks. U.S. quarantine policy has also always been guided by the principle of "least drastic action" which instructs regulatory authorities to protect domestic agriculture from pests while imposing the fewest possible barriers on commerce and trade.

Because pest detection and eradication technology changes over time, quarantine policies can also be expected to change. The fact that a segment of the Mexican avocado industry had adopted innovations in chemical controls and cultural practices, combined with recent ARS research results about the resistance of Hass avocados to fruit fly infestation, supported APHIS' assessment that the risks associated with importing these avocados were lower than when last reviewed in the 1970's. The revision in Q56 reflected a change in actual risk factors and the understanding of those risk factors—not a change in APHIS' mandate to protect American agriculture.

The partial lifting of the ban on Mexican avocados, although in conformity with the new disciplines on the use of SPS measures, was not "caused" by NAFTA, but rather reflected USDA's long tradition of basing quarantine policy on sound

science. With the URA and NAFTA in place, the U.S. will now be able to oblige its trading partners to do the same.

Donna Roberts, USDA-ERS, Geneva, Switzerland, 41-22-749-5245
droberts@ustr.gov **AO**

June Releases—USDA's Agricultural Statistics Board

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

June

- 2 Crop Progress (after 4 pm)
- 3 Dairy Products
- 4 Broiler Hatchery
Egg Products
Poultry Slaughter
- 5 Minn.-Wisc. Base Month Price,
Final 1994-96
- 9 Crop Progress (after 4 pm)
- 11 Broiler Hatchery
- 12 Crop Production (8:30 am)
- 13 Cattle on Feed
Milk Production
Turkey Hatchery
- 16 Crop Progress (after 4 pm)
- 18 Broiler Hatchery
- 20 Cold Storage
Livestock Slaughter
- 23 Crop Progress (after 4 pm)
- 24 Catfish Processing
Chickens & Eggs
- 25 Broiler Hatchery
- 26 Cherry Production
Peanut Stocks & Processing
- 27 Agricultural Prices
Hogs & Pigs
- 30 Acreage (8:30 am)
Grain Stocks (8:30 am)
Crop Progress (after 4 pm)

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U.S. & Mexican Avocado Sectors: A Comparison

Mexico is the world's largest avocado producer and second-largest exporter, accounting for about 67 percent of global production and 24 percent of world trade in 1995/96. Mexico currently exports about 7 percent of total production, mainly to Europe, Canada, and Japan. The U.S. is the second-largest producer of avocados (about 15 percent of world production) and the sixth-largest exporter (5 percent of global trade). The U.S. exports about 5 to 7 percent of production, with the EU, Japan, and Canada the most important markets.

Mexican per capita consumption is about 7 kilograms per person, compared with U.S. consumption of less than 1 kilogram. U.S. per capita consumption more than doubled between the early 1970's and the early 1980's, but has remained fairly constant since then. California has by far the highest per capita avocado consumption in the U.S., for two principal reasons: it is the main region of U.S. production and it has a large Hispanic population with an established preference for avocados.

The 19 northeastern states where Mexican avocados will be permitted under the recent APHIS ruling are estimated to consume 10,000-15,000 tons of fresh avocados annually and account for about 8 percent of domestic use. Avocados are used primarily in fresh salads, as toppings on soups, and as the main ingredient in guacamole. Avocados are rich in potassium and vitamin A and free of cholesterol, but relatively high in fat and calories.

In both countries, production is highly concentrated in one state and on one variety. Mexico produces mainly the Hass variety, with over 85 percent grown in the state of Michoacán near Mexico City. In the U.S. over 90 percent of all avocado trees are in California, with roughly half of U.S. production located in San Diego County. California produces mostly the Hass variety, which has a pebbly, dark green skin. Most of the remaining U.S. output is from Florida, mainly a variety of West Indian origin with a smooth, lighter green skin.

Hawaii also grows a small amount of avocados.

Avocado production requires a great deal of water. In San Diego County, avocado production relies on high-cost irrigation. In Michoacán, where only about half the orchards have irrigation systems, abundant rainfall gives Mexican producers an advantage in lower water costs.

At a national level, Mexican yields are typically 7 to 9 metric tons per hectare, although a mature orchard with 8-year-old trees generally averages 15 tons per hectare. California yields are slightly lower at about 5 metric tons per hectare.

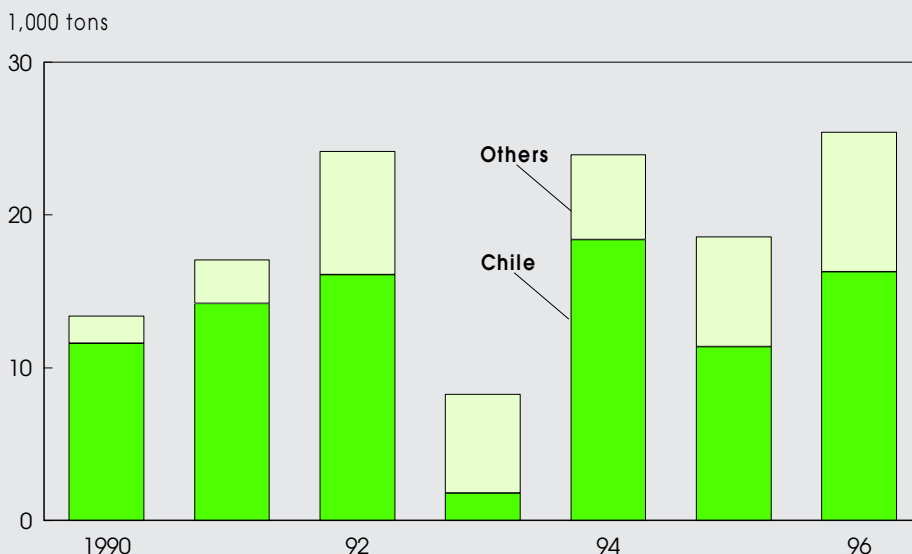
Production of avocados can fluctuate a great deal from one year to the next, due to the crop's sensitivity to cold, leading to wide variations in price and in consumption levels. Some avocados also go through a bearing cycle that varies the production over several years. California is capable of producing substantial volumes of avocados year-round, although the peak season is usually from March to August, with the lowest levels from

September to December. Florida markets about 90 percent of its harvest between August and December.

In Michoacán, the primary harvest season is October to February, although production is year-round. Therefore, there is some complementarity in the Mexican and U.S. production cycles, although Mexico could pose new competition during January and February, when California has been nearly the sole supplier.

Mexico's avocado growers have been looking forward to the opportunity to export to the U.S. for several years. In fact, a number of new trees was planted with this goal in mind in the late 1980's and early 1990's, and these are now starting to bear fruit. Producer organization has undergone a series of changes, with the Michoacán Avocado Commission now the principal voice for growers. In an effort to improve export promotion, the Mexican industry is reportedly working with the Michoacán state government and the federal government to develop standards for product quality and labeling. Reportedly about 15

Chile Has Dominated U.S. Avocado Imports in the 1990's



Source: *Foreign Agricultural Trade of the U.S.*, Economic Research Service.
Economic Research Service, USDA

growers in Michoacán may eventually be able to ship avocados to the U.S., but only 2 or 3 may be able to take advantage of the opening initially. Michoacán growers estimate that 13,000 hectares in four municipalities in the state, capable of exporting 80,000 tons, could be approved by APHIS to export avocados to the U.S.

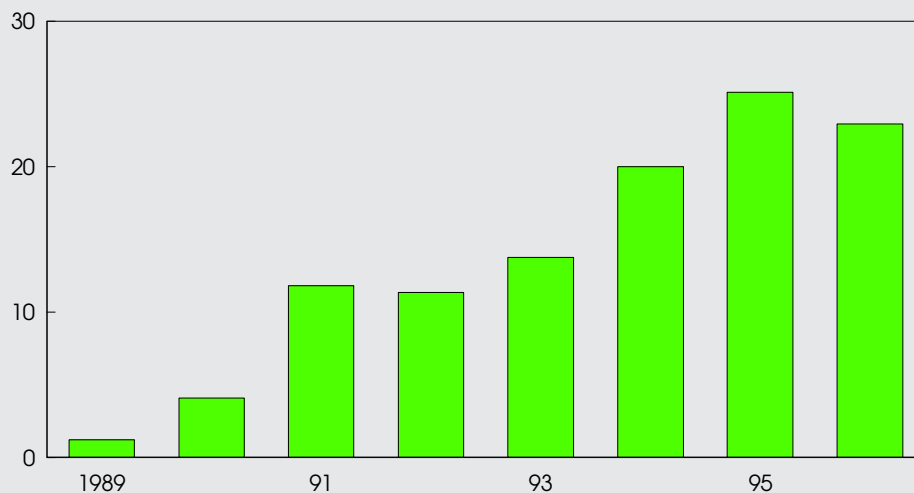
Poor weather in Mexico reduced the 1996/97 crop by approximately 20 percent, to 635,000 tons. Heavy rainfall, hailstorms, and cool temperatures in Michoacán during the flowering season caused fruit to fall early, and reduced both yields per tree and size of the fruit. For the 1997/98 season—the first for which the recent APHIS ruling will apply—Mexican growers interviewed by USDA's Foreign Agricultural Service expect output to bounce back 30 percent as higher yields often follow a low-yield year.

The California Avocado Commission's March estimate for 1996/97 state output was that the avocado crop would be up 3 percent. Total California shipments from November 1996 to March 1, 1997 were up 12 percent from the previous year, with prices down 3 percent. For the Hass variety, shipments were up 10 percent and prices down 5 percent. The first official USDA production estimate for 1996/97 will be released in July.

As with other seasonal crops, prices for Mexican avocados drop during the peak harvest season—November to February. However, these prices reflect the whole crop as marketed in Mexico City's main wholesale market. Export-quality fruit commands a higher price for its appearance and the special handling required. Mexican prices remain low during March and April as the crop continues to be marketed. Mexican avocado producers have a great deal of flexibility in timing of harvest because avocados can be stored on the tree, often for several weeks or months. Avocados ripen once they have been picked, softening within 3 to 4 days for fruit picked late in the season and 3 to 4 weeks for fruit picked early in the season.

U.S. Processed Avocado Imports from Mexico Have Grown Rapidly in the 1990's

\$ million



Source: U.S. Customs Service.
Economic Research Service, USDA

Mexico's Competitiveness In the U.S.

Under the new APHIS rules, Mexico and Chile will find themselves in direct competition in the U.S. market during November and December. The U.S. imported 25,000 tons of fresh avocados worth \$23 million from all sources during calendar 1996, about 15 percent of domestic demand.

In the past few years, Chile has been supplying about two-thirds of U.S. avocado imports, mainly during September-December. During the 1990's, Chile exported an average 13,000 tons of fresh avocados to the U.S., with 40 percent entering during November and December. Chilean avocados face a U.S. tariff of 12.9 cents per kilogram, as opposed to the 7.9 cents/kg tariff for Mexico, and Mexico's tariff will be phased out by 2003 under NAFTA.

Some Mexican fresh avocados have already been entering the U.S. in recent years, coming by truck through Laredo, Texas. However, these avocado imports, which reached nearly 1,800 tons in 1996, have been bound by truck for

Alaska (where imports from Mexico have been permitted since 1993) or for Canada, or headed to U.S. ports for other re-export destinations.

In the last few years, while the partial lifting of the ban on fresh avocados was being developed, Mexican exporters have relied on pre-export processing to market their avocado products in the U.S. Processed avocado products include avocado pulp, avocado paste, and guacamole in consumer-ready packaging. Avocado pulp comes in tubs for use in restaurants and food processing.

Imports of processed avocados from Mexico have grown strongly in the last few years. The U.S.'s phytosanitary ban does not apply to processed avocados, as the husk and large seed have been removed. In fact, the value of processed avocado imports from Mexico is now equivalent to U.S. fresh avocado imports from all sources. Processed avocados face a 1997 tariff of 7.9 cents per kg, which will be eliminated by 2003. About 3 percent of Mexico's avocado crop goes to processing outlets.
*Daniel Plunkett (202) 219-0670
plunkett@econ.ag.gov* **AO**

Special Article



John Snyder

Ag Trade Environment With an Enlarged European Union

The prospective enlargement of the European Union into Central and Eastern Europe could add as many as 100 million new consumers to the EU market and double the number of farmers, having potentially profound effects on global and U.S. agricultural trade. Initial USDA analysis indicates that accession to the EU and subsequent implementation of EU agricultural policies will increase agricultural output in Central and Eastern Europe (CEE), particularly in the livestock sector, creating increased demand for feedstuffs, and opportunities for additional U.S. corn and oilseed exports. On the other hand, CEE preferential trade agreements with the EU, in addition to geographic ties, could limit U.S. trade potential in this growing market.

Ten CEE countries, including the Baltic states, have applied for membership in the European Union and have signed Association Agreements (Europe Agreements) with the EU. These countries are Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. Negotiations between the EU and the applicant countries are not expected to begin before 1998. European enlargement is likely to occur in a number of stages, with the Czech Republic, Poland, and Hungary—the most market-oriented and reformed countries of the proposed group—favored to join first. The Europe Agreements provide a framework for preparing the CEE countries for eventual membership, allowing them time to continue their economic and political reforms.

CEE countries will benefit from EU membership through unrestricted access to EU markets and higher producer prices for their farmers. However, membership will not be without cost. Higher expenditures by the EU will be required to support CEE agriculture at current EU producer prices, completely open borders will increase competition with Western Europe's agro-food sector, and consumer expenditures on food, already a large proportion of CEE incomes, will rise, having an inflationary impact.

A potential risk is that, with completely open borders between EU and CEE countries, the CEE agro-food sector will find it difficult to compete with Western European firms. This is particularly true of the food processing industry. Some CEE food processors have modernized sufficiently to meet EU product standards, but for most of the CEE food industry, considerable investment is still needed. Among raw agricultural products, CEE livestock will have difficulty competing in the EU market, as most CEE meat and dairy products do not meet EU quality standards.

While CEE countries have made significant progress toward recovery from the recession of the early transition period, considerable restructuring of their agricultural sectors will be needed for successful integration into the EU. The remaining challenges include improvement of farm productivity, completion of privatization of state farms and agro-industry, simplification of government purchasing and market management practices, training in agribusiness and quality control, and programs to encourage rural development and structural adjustment.

Agencies created in many of these countries to administer minimum prices, export subsidies, or other measures often operate in a nontransparent way, leading to questions of compliance with World Trade Organization (WTO) regulations on state trading. State policies in Bulgaria and Romania, for example, cause significant distortions in domestic markets. Procurement of bulk commodities in these countries is still mainly in the hands of state-owned companies that use their market power to hold down prices. In addition, these governments continue to exert some control over retail prices through limits on processing margins.

The EU has taken a multi-pronged approach in its preparations for enlargement. It has funded an extensive program of technical assistance for the CEE region, designing projects to improve agricultural structures and market mechanisms, food production, processing and distribution, and infrastructure. In addition, the 1996/97 EU Intergovernmental Conference is addressing institutional preparations for enlargement.

Enlargement Could Trigger EU Ag Reforms

The EU is a global player in agricultural trade, and EU enlargement will inevitably have implications for European agriculture. The EU, one of the world's largest and most competitive agricultural exporters, is a major force in multilateral trade negotiations. The prospect of adding 100 million consumers and doubling the number of EU farmers is a matter of keen interest to U.S. agriculture because it is likely to be an impetus for major changes.

Europe Agreements Pave Way to EU Membership

The Europe Agreements form the basis for gradual integration of CEE countries with the EU. The agreements cover five main areas: political dialogue, economic cooperation, financial assistance, adoption of EU legislation, and trade liberalization. The first agreements were signed with Poland, Hungary, and Czechoslovakia in 1991, with mutual trade provisions taking effect the following year and the entire agreements taking effect in 1994. The objective of all the agreements is membership of the CEE countries in the EU. All 10 CEE countries—Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia—have formally applied for EU membership.

The bilateral trade and cooperation provisions of the Europe Agreements call for most-favored nation (MFN) treatment and gradual elimination of selective quantitative restrictions over a 10-year period, beginning when the agreements go into effect. Separate protocols cover “sensitive sectors,” including agricultural products, clothing, textiles, coal, and steel. For agricultural products, most concessions are phased in within 5 years and involve tariff reductions and quota increases. For example, beef, pork, mutton, poultry, and dairy products are subject to a 20-percent tariff reduction over 3 years, while import quotas will increase 10 percent per year for 5 years. However, trade in some commodity groups, such as grains, has not been liberalized.

The two-way preferences were structured to accelerate liberalization for CEE exports to the EU. Despite this, EU exports to the CEE have far outstripped trade in the opposite

Scheduled CEE “Europe Agreements” and EU Membership Applications

	Europe Agreements Signed	Effective	EU membership application
Hungary	Dec. 1991	Feb. 1994	Mar. 31, 1994
Poland	Dec. 1991	Feb. 1994	Apr. 5, 1994
Romania	Feb. 1993	Feb. 1995	June 22, 1995
Bulgaria	Mar. 1993	Feb. 1995	Dec. 16, 1995
Czech Rep.	Mar. 1993	Feb. 1995	Jan. 23, 1996
Slovakia	Oct. 1993	Feb. 1995	June 27, 1995
Estonia	June 1995	N/A	Nov. 28, 1995
Latvia	June 1995	N/A	Oct. 27, 1995
Lithuania	June 1995	N/A	Dec. 8, 1995
Slovenia	June 1996	N/A	June 10, 1996

N/A = not yet in effect.

Economic Research Service, USDA

direction. In the first years of the agreements, lack of information and familiarity with EU procedures prevented the CEE countries from fully utilizing their allotted quotas. The EU’s quarterly administration of preferential quotas, which hinders full utilization of annual quotas where seasonal commodities are concerned, also limited CEE exports. Finally, the method of administering tariff-rate quotas places CEE countries at a disadvantage—the quotas were allocated to EU importers rather than CEE exporters. Recently, the EU and the associated countries began renegotiating their agricultural protocols to expand preferences in order to accommodate the final WTO Agreement on Agriculture.

The CEE countries have huge agricultural sectors which, despite the advances of recent years, are generally less developed than those of the EU. The application of current Common Agricultural Policy (CAP) mechanisms to CEE would be very costly to the EU. Extending the generous benefits provided to EU producers would significantly increase EU agricultural spending. It is increasingly likely, therefore, that the enlargement will precipitate a sweeping reform, further reducing price support to farmers and expanding upon the limited reforms undertaken in 1992. The U.S. views this prospect as an opportunity for the EU to further liberalize its agricultural policies and build on the accomplishments of the Uruguay Round agreements.

The European Commission has examined different enlargement scenarios to measure the economic implications, including implications for the CEE and EU farm sectors. One approach would continue the CAP reform efforts begun in 1992, which reduced producer support prices and compensated producers with payments, and would extend these reforms to cover other sectors such as dairy, in an effort to improve EU agricultural competi-

tiveness. Such an approach implies greater use of direct compensatory payments to help maintain farm revenues.

USDA also conducted preliminary analysis on the impact of CEE accession to the EU, under two extreme scenarios: in one, the current CAP applies to CEE, and in the second, farmers in an enlarged EU-19 (including the Czech Republic, Hungary, Poland, and Slovakia) face world prices. The results in both cases reveal that the agricultural economies of the current EU-15, and CEE, are likely to experience major adjustments.

Agricultural commodity prices in the EU are typically above world prices, while most CEE prices are currently below world prices. The CEE countries will be required to adopt EU prices after accession, which will likely stimulate CEE agricultural output and hinder consumption. If the EU-19 adopted world prices, CEE production gains would be smaller (than under EU-15 prices), while EU-15 output would decrease and EU-15 consumption would increase. The effect would be greatest for commodities with the largest current world-to-CEE price differentials.

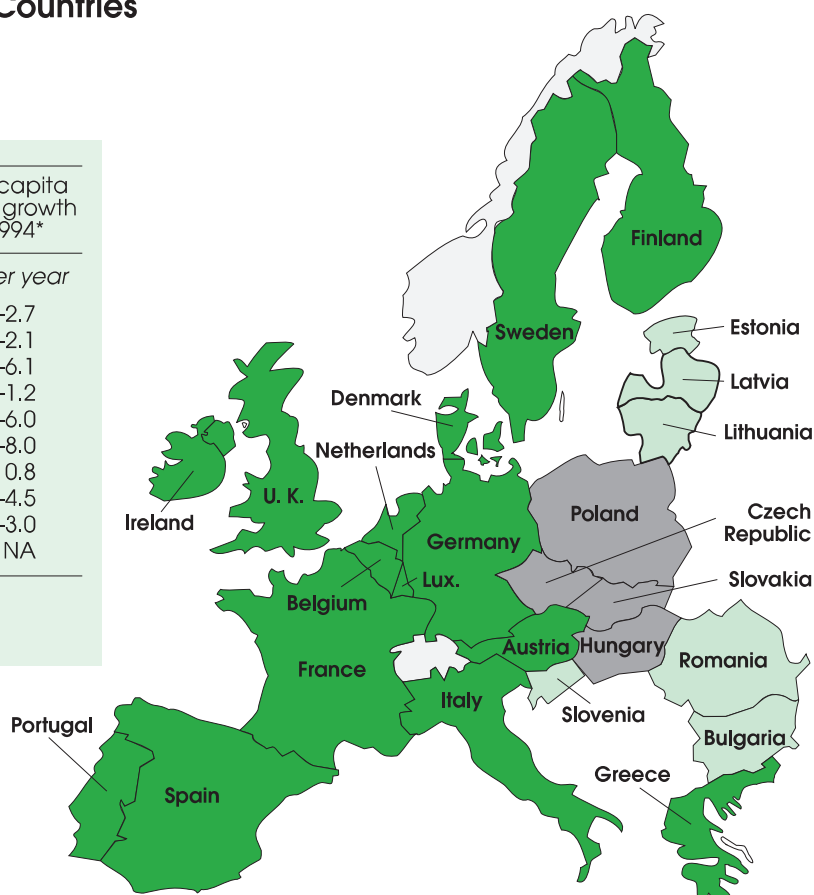
Special Article

Economic Growth Still Eludes Most CEE Countries

	Population mid-1994	Per capita GNP, 1994	Per capita GNP growth 1994*
	Million	US\$	% per year
Bulgaria	8.4	1,250	-2.7
Czech Republic	10.3	3,200	-2.1
Estonia	1.5	2,820	-6.1
Hungary	10.3	3,840	-1.2
Latvia	2.5	2,320	-6.0
Lithuania	3.7	1,350	-8.0
Poland	38.5	2,410	0.8
Romania	22.7	1,270	-4.5
Slovakia	5.3	2,250	-3.0
Slovenia	2.0	7,040	NA

NA = not available.
 *Adjusted for inflation.
 Source: World Bank Development Report, 1996.

- EU-15
- EU-19 (EU-15 + Czech Republic, Hungary, Poland, Slovakia)
- Other CEE



Under both scenarios, CEE meat prices would increase significantly, spurring production and discouraging consumption. Meat production would shift somewhat from the EU-15 to CEE, increasing the share of CEE production. The EU-19 would continue to have some exportable surpluses of pork and poultry. CEE grain production would also increase under both scenarios, as CEE producers respond to higher prices. However, due to the EU's mandatory set-aside program, the increase in CEE grain production would be very small under the current CAP and would be dwarfed by the increase in consumption due to rising feed use by the livestock sector.

If the EU-19 adopted world prices and abolished the set-aside, the region would become an even larger wheat exporter than the EU-15, while potentially importing more corn. It is likely that large increases in EU-19 agricultural production would lead to lower world prices, dampening future production gains slightly.

Growing Market for U.S. Farm Exports

The U.S. has had a keen interest in the CEE countries from the beginning of the region's transition process in 1989. Many CEE countries have made significant progress in their transition to market economies, and trade with the West has boomed. U.S. agricultural exports to the region were roughly \$400 million in

fiscal 1996, making the region one of the fastest growing markets for U.S. farm products.

The CEE countries represent a potentially large export market, with strong growth potential. Prospects are uncertain for U.S. trade, however, as EU competition in the region presents a major obstacle to increased exports. The EU is the most important CEE trading partner and the source of about half of all CEE agricultural imports. The EU has benefited from natural advantages conveyed by geographic proximity, lower transport costs, long-standing cultural ties, ease of marketing servicing, and the opportunity for frequent direct contact with customers.

In 1996, U.S. agricultural exports to CEE countries represented only 5 to 10 percent of the CEE market and were not highly diversified, consisting primarily of wheat, feed grains, and poultry meats. Traditional U.S. exports of bulk commodities, particularly grains, have declined since 1990 and fluctuate considerably from year to year, depending on domestic CEE grain production.

On the other hand, the high-value-product (HVP) share of U.S. exports to CEE has been rising. Poultry claims the largest share of HVP exports, although it has slumped in the last 2 years as CEE countries take increasingly protectionist measures. Exports of hides and skins and variety meats such as fresh or frozen offal

are beginning to recover, and U.S. companies are finding markets for new products not traditionally imported by CEE, including popcorn, other processed grain products (such as ready-to-eat cereals), and horticultural products, especially nuts.

While the U.S. supports EU enlargement, it is also committed to furthering the development of free trade in the global economy. Therefore, the U.S. will work to ensure that EU terms of accession are consistent with the Uruguay Round agreement.

Prospects for U.S. agricultural exports to the region as it becomes more integrated with the EU are favorable in the near term, particularly for high-value products. Rising income growth resulting from EU membership should increase overall demand for agricultural products, and U.S. exports could rise as total exports to the region expand. U.S. exports of oilseeds, oilseed products, and some feeds may benefit as the livestock sector expands. An expanding and modernizing farm sector may also raise demand for U.S. agricultural inputs.

Opportunities for increased U.S.-CEE trade will likely be limited, however, by CEE government intervention, increased protection, and stiff EU competition. As CEE countries come under the EU's import regime, shipments to these countries will encounter the principle of community preference, whereby the EU (like all customs unions) discriminates against third-country imports in favor of products from member countries.

As EU members, CEE countries will adopt EU veterinary, sanitary, and phytosanitary standards. Restrictions on trade between the current EU-15 and its trading partners will then also apply to imports into the new member countries. This could present problems for U.S. access to CEE-10 countries. After enlargement, longstanding U.S.-EU disputes over hormone-treated meat, meat inspection standards, and more recently, genetically modified organisms, will have greater impact, affecting nearly all of Europe.

As increased protection and competition from the EU in the market for agricultural goods render trade prospects uncertain, U.S. businesses may find that investing in this region will allow them to take advantage of expanding demand. While the climate for investment by agricultural industry varies by country, economic developments in the region overall are generally favorable for investment. The region's advantages include a highly educated, low-cost workforce, rapidly growing economies with rising per capita incomes, and close proximity to major markets in the EU and the newly independent states of the former Soviet Union. The recovering agricultural GDP will enhance investment and joint-venture opportunities in the areas of farm inputs such as fertilizers, feed, and agricultural machinery, as well as marketing and food processing.

Some obstacles to investment remain, however. Political and economic instability continue in the region. During the transition process, agricultural output has declined, fueling pressure for protectionism.

Risk is an important consideration for potential investors in the region. Despite strong growth, per capita incomes are still low relative to developed market economies, and unemployment is high. Markets for land are not well developed, which increases risks and transaction costs. Some countries' legal structures may not yet be developed for private business operations. Privatization is not complete, especially in the agro-industrial sector. The lagging reform of the processing and distribution sectors remains a major bottleneck. Infrastructure is frequently inadequate, particularly in rural areas.

On the positive side, opportunities for profitable investment in agriculture are linked to increased mechanization of the farm sector, demand for high-tech inputs, and land consolidation. Rising incomes offer opportunities in high-value and processed products, and in oilseeds and other inputs for the expanding livestock sector.

Moreover, EU enlargement will expand the size of the market, with output of most agricultural products expected to expand. EU assistance to CEE countries through structural funds will address some of the obstacles to investment that are aggravated by an outdated agricultural infrastructure. At the same time, EU membership may address some of the problems attendant to economic and political instability and lack of transparent economic and legal systems, reducing risk to investors.

The overall benefits to exporters and investors in an enlarged EU are not without costs. CEE agricultural sectors are rife with distortions resulting from many years of a command-structured economy. The EU's CAP, even if "reformed," may simply replace one set of market distortions with another. Despite short-term improvement in the trade outlook, EU membership may limit opportunities for U.S. agricultural exports to CEE countries. The best opportunities in the CEE region will remain in exports of HVP's, targeted bulk commodities, and investment in certain sectors. Higher agricultural prices following CEE membership could reduce global competitiveness of businesses based in CEE countries. Despite such reservations, CEE will continue to be an important region for U.S. agriculture, as it is an expanding market for U.S. farm exports and a strong magnet for U.S. investment.

Elizabeth Jones (202) 219-0619 and Susan Leetmaa (202) 219-0647

ejones@econ.ag.gov

sleetmaa@econ.ag.gov

