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Soybeans: Background and Issues for Farm Legislation

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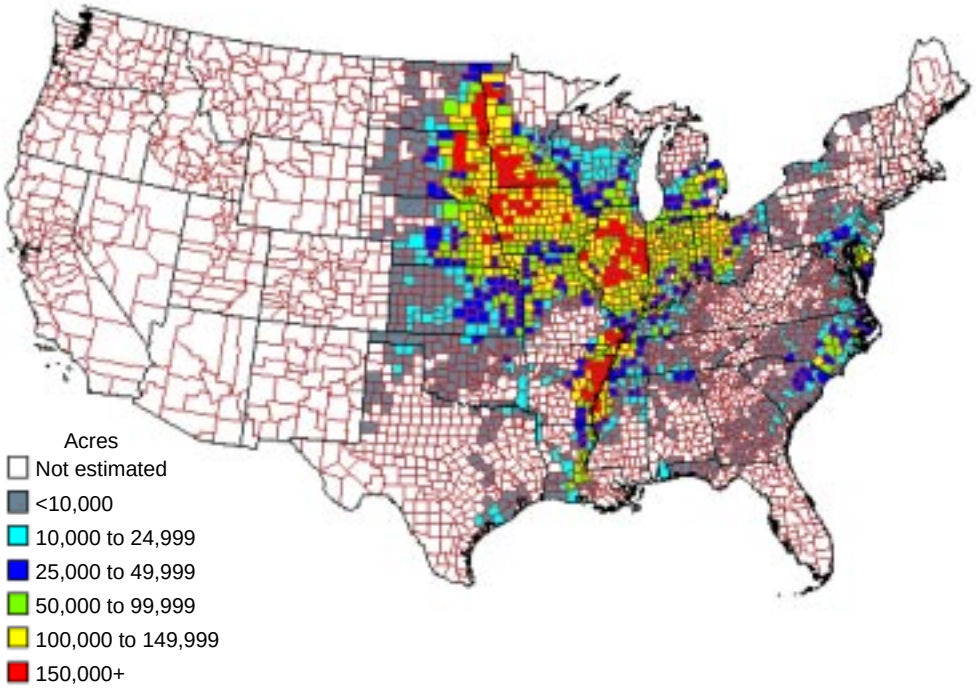
Congress is considering new farm legislation to replace the expiring Federal Agriculture Improvement and Reform Act of 1996. As background for these deliberations, this report provides information on supply, demand, and prices in the U.S. soybean sector. Domestic policy effects on U.S. exports and trade agreements are also evaluated because international trade is an important component of soybean demand. A description of the major features of the current soybean program is included, as well as a discussion of some proposed policy changes.

Soybeans, harvested acres by county, 2000



Source: National Agricultural Statistics Service, USDA.

OVERVIEW OF THE U.S. SOYBEAN SECTOR

Production

Soybeans are the second-highest valued crop in the United States, trailing only corn. The farm value of soybean production in crop year 2000 was $13.1 billion. More than 80 percent of U.S. soybean acreage is concentrated in the upper Midwest, although the historically important areas of the Delta and Southeast still account for a significant share. Soybean acreage in the South has declined steadily since its peak in the 1980s because yield growth there has lagged that of other areas. In the United States, soybeans are most commonly grown in a crop rotation with corn and other grains. Double-cropping of soybeans with winter wheat occurs mostly in the South.

New seed varieties, more effective fertilizer and pesticide applications, and improved management practices have caused yields to rise, thereby encouraging expansion of soybean acreage. Higher yields reduce per-bushel costs of production, which enhances profitability. U.S. average soybean production costs were $249 per acre ($6.23 per bushel) in 1999. Operational costs (including seed, fertilizers, chemicals, fuels, and hired labor) averaged $76 per acre ($1.91 per bushel). Allocated overhead (such as land cost, capital recovery of machinery, and taxes) averaged $173 per acre, but tends to be lower for the largest farms because it is distributed over more output. Thus, while nearly all soybean farmers can cover their annual operating costs at current prices, some smaller farms may have trouble paying off debt on fixed investment and securing a reasonable return on their own labor and management. Midwestern soybean producers generally have higher yields and lower per-acre cash costs than southern and eastern producers.

In recent years, soybean farmers have increasingly adopted conservation tillage practices to reduce production costs, help protect soil and water resources, and provide other environmental benefits. More than 45 percent of U.S. soybean acres are conservation-tilled. After 1985, many producers adopted conservation tillage to meet conservation compliance requirements that were enacted in farm legislation. Higher yields from improved retention of soil moisture also contributed to the trend toward conservation tillage. Tillage systems can also influence input use. With less soil cultivation, weed control depends more heavily on herbicide applications. Pesticide use (nearly all herbicides) on soybeans ranks second only to corn. In 1997, commercial fertilizer was applied to less than 40 percent of soybean acreage, a much lower rate than for most row crops (e.g., corn and cotton). Unlike other major crops, soybeans can fix their own nitrogen and require minimal nitrogen fertilizer. Irrigation was used on 4.2 million acres of soybeans in 1997, or 6 percent of total acreage. Most of the irrigated soybean acres are in Arkansas and Nebraska.

Herbicide-tolerant soybeans were among the first bioengineered crops to achieve commercial importance. Since their general commercial introduction in 1996, herbicide-tolerant soybean varieties have gained rapid acceptance among U.S. farmers seeking reduced costs and a simpler method of pest management. In 2001, these varieties account for 68 percent of U.S. soybean planted acreage. Farm acreage surveys indicate that soybeans account for most biotech crop acres, followed by corn and cotton.

The popularity of bioengineered soybeans with U.S. farmers has ramifications for resource use, marketing, and international trade. Preliminary ERS research indicates that farmers adopting herbicide-tolerant varieties of soybeans have reduced the number of per-acre herbicide treatments and tend to use herbicides with less toxicity. Bioengineering of oilseed crop traits initially focused on improving production attributes, such as lower pest control costs. But development of soybeans with enhanced functionality characteristics—such as healthier oil attributes, improved animal nutrition, and more palatable food quality—is progressing.

Whether U.S. farmers will continue to expand their use of biotech seed depends, in part, on the acceptance of biotech crops in domestic and foreign markets. Farmers in Argentina and Canada are growing biotech crops as well. Some governments, such as the European Union and Japan, require labeling of foods containing biotech ingredients, and other countries are considering similar labeling policies. There is also some debate regarding whether to segregate biotech and non-biotech crops in the marketing chain. Segregation of non-biotech soybeans would add to producers' and grain handlers' costs, but consumers' willingness to pay premiums necessary to cover these costs is uncertain.

Farm Structure

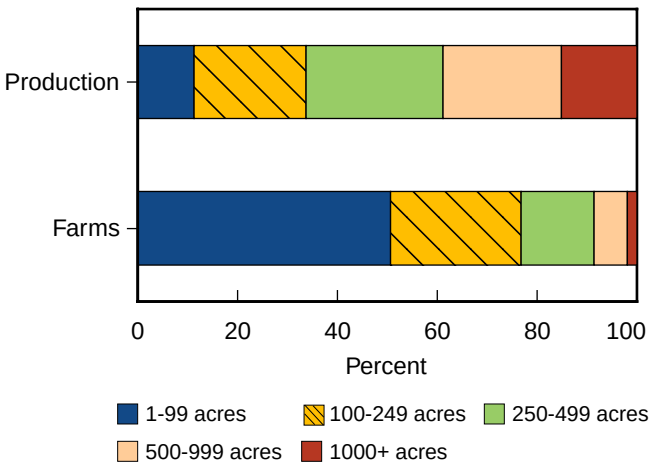
Census of Agriculture data indicate that 354,692 U.S. farms raised soybeans in 1997, down from 511,000 in 1982. With more acreage and fewer farms, harvested soybean acreage per farm increased from 114 acres in 1978 to 186 acres in 1997. While 77 percent of the farms growing soybeans were small farms (less than 250 acres), these farms accounted for only 34 percent of 1997 soybean production. Individual or family farms accounted for 82 percent of farms producing soybeans and 71 percent of soybean production in 1997. Partnerships and small family-held corporations accounted for much of the remainder, while other corporations produced only 0.4 percent of the total soybean crop. Tenant farmers accounted for 17 percent of U.S. soybean production, full owners produced 15 percent, and part owners produced the rest.

Domestic Uses of Soybeans

Domestically, nearly all soybeans are processed (crushed) to extract the oil for food and industrial use and the high-protein meal for animal feed. A comparatively small amount of whole soybeans is used for seed, on-farm dairy feed, and direct food uses such as tofu.

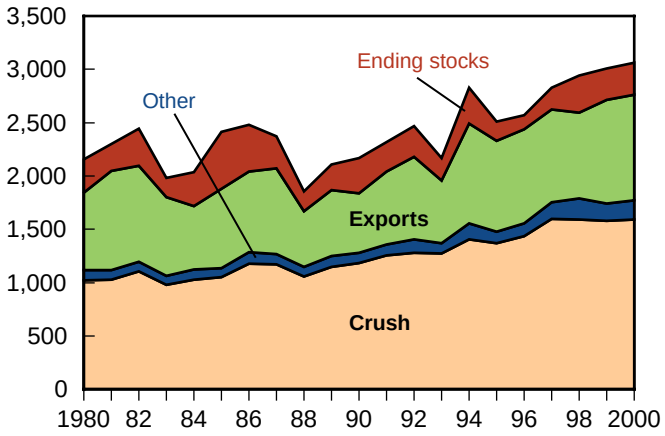
Soybean crushing operations are generally located near major soybean production regions, with easy access to rail and barge carriers that transport products to domestic feed markets and to export markets via ports located on the Gulf of Mexico. Soybean meal is the most valuable product obtained from soybean processing, ranging from 50 to 75 percent of total value (depending on relative prices of soybean oil and meal). Soybean meal is the world's dominant high-protein feed, accounting for nearly 65 percent of world supplies. Livestock feed accounts for 98 percent of soybean meal consumption. The remainder is used in human foods such as bakery ingredients and meat substitutes.

Farms growing soybeans and soybean production, 1997



Source: U.S. Census of Agriculture, 1997.

Most U.S. soybeans are crushed domestically



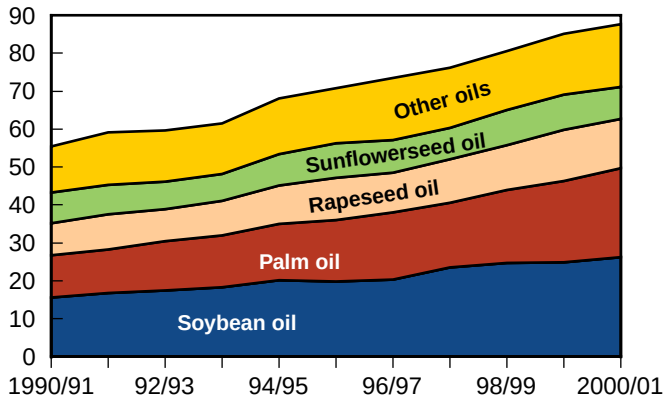
Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Soybean oil's contribution to soybean value is smaller, as it constitutes just 18-19 percent of the soybean's weight. Yet soybean oil accounts for about two-thirds of the vegetable oils and animal fats consumed in the United States. It is used mainly in salad and cooking oil, bakery shortening, and margarine, but also has a number of industrial applications. Worldwide, soybean oil is the largest source of vegetable oil, but palm oil, whose use has grown rapidly, looks likely to displace soybean oil's top ranking within a few years.

Trade and Trade Agreements

The world oilseed market consists of many closely substitutable commodities, such as soybeans, rapeseed, sunflowerseed, and cottonseed. Exporting countries also process oilseeds domestically and ship the resulting protein meal and vegetable oils to foreign buyers. Foreign import demand depends on the deficit between countries' domestic oilseed output and their consumption. Relative demand for protein meal and vegetable oil, and limits on domestic processing capacity, determine the ratio of oilseeds and oilseed products that countries will import. The volume and source of for-

Global output growth for competing vegetable oils exceeds that of soybean oil



Other oils include cotton seed, peanut, coconut, olive, and palm kernel.

Source: Foreign Agricultural Service, USDA.

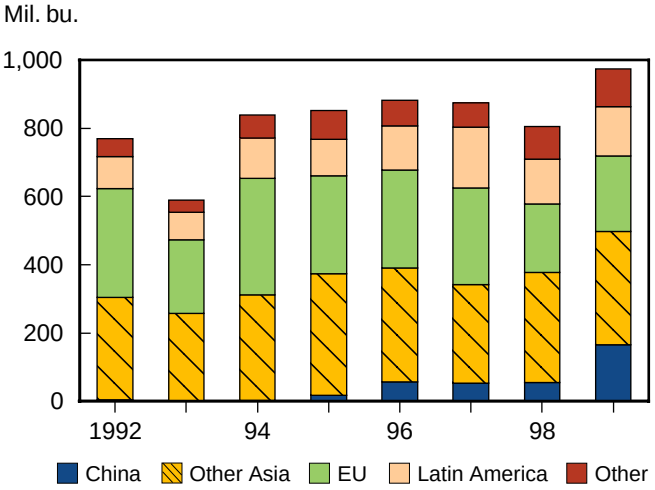
eign imports depend on seasonal availability and relative prices, credit and delivery terms, local preferences, and quality. Importing countries' policies, such as tariffs and domestic subsidies, also can influence shipments by adjusting local prices and the availability of competing products. Since the oil content of soybeans is relatively low compared with other oilseeds, the dominance of soybean oil in the world vegetable oil market has waned.

The United States is the world's largest exporter of soybeans, and exports represent a significant source of demand for U.S. producers. Among all U.S. agricultural products, only feed and food grains together outrank the oilseed sector in total export value and net exports. For the 1999/2000 marketing year, exports of soybeans and soybean products accounted for 40 percent of U.S. soybean production, and were valued at $6.6 billion. For the United States, major export destinations for whole soybeans include the European Union (EU), Japan, Mexico, China, and Taiwan. Important markets for U.S. soybean meal exports include the Philippines, Canada, Saudi Arabia, Venezuela, and Turkey. With so much competition from other oils, U.S. soybean oil exports are widely dispersed and are heavily influenced by concessional food aid to developing nations under the P.L. 480 food aid program. U.S. imports of oilseeds and products amounted to $1.9 billion in 1999/2000, mainly rapeseed and rapeseed products from Canada, olive oil from Western Europe, and tropical oils from the Philippines, Indonesia, and Malaysia.

USDA administers two credit guarantee programs that help finance a portion of U.S. oilseed and oilseed product exports. The Export Credit Guarantee Program (GSM-102) and the Intermediate Export Credit Guarantee Program (GSM-103) are used to underwrite credit extended by U.S. banks to approved foreign banks to pay for food and agricultural products sold to foreign buyers. In essence, the credit programs assure U.S. exporters that they will be paid for their products. Following the Asian financial crisis of the late 1990s, credit became particularly important in supporting U.S. agricultural exports to several countries. Multilateral negotiations to discipline the use of export credits for all nations are ongoing. Another program, the Foreign Market Development Program (FMD) uses funds from the USDA's Commodity Credit Corporation to aid in the creation, expansion, and maintenance of foreign markets for U.S. agricultural products, including oilseeds and products.

World trade in whole oilseeds, particularly soybeans, is relatively unrestricted by tariffs and other border measures. However, to help protect domestic oilseed processors, many countries place higher tariffs on oilseed meals and vegetable oils, in particular, than on oilseeds. For example, applied tariffs on soybean oil average about 20 percent among the world's top consumers and importers of the commodity, compared with rates generally at or below 10 percent for soybeans. Western agricultural interests and processors have sought for many years a worldwide elimination

U.S. soybean exports rise to record volume on strong China demand



Source: Economic Research Service, USDA.

of all export subsidies on oilseeds and their products in exchange for abolishing import tariffs on them.

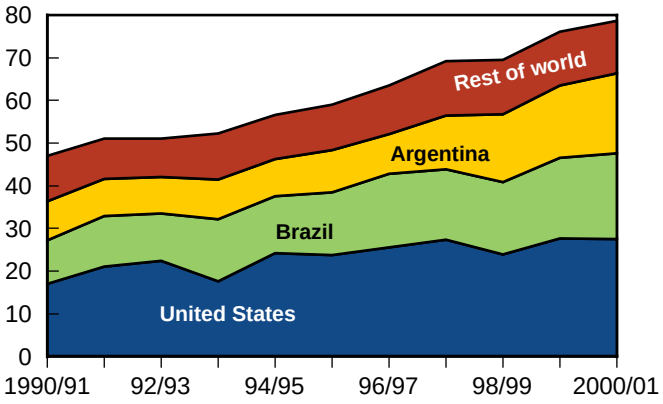
The U.S. share of global exports has steadily diminished in the past two decades despite substantial growth in U.S. soybean output and recent gains in export volume. In the mid- to late 1970s, the United States dominated world trade in unprocessed oilseeds, with a market share of more than 70 percent. Recently, this share has fallen below 50 percent. The United States has seen its share of soybean meal and soybean oil exports fall even more sharply, although from a smaller base, particularly before 1990. One reason U.S. soybean meal exports have experienced a relative decline is the recent expansion of U.S. meat exports, which has raised domestic meal use rather than contributing to exports of soybeans or soybean meal.

A particularly important factor in the declining share of U.S. exports has been the phenomenal growth of foreign soybean output and exports, particularly by Brazil and Argentina. Foreign soybean output now exceeds that of the United States, and Brazil and Argentina share approximately a third of the soybean export market, up from less than 15 percent before 1980. With increased production, and more rapid expansion of trade in soy products than in whole beans, Brazil and Argentina have each overtaken the United States in soybean meal and soybean oil exports.

Soybean production in South America has expanded rapidly since the early 1970s. Brazil is now second to the United States in soybean production. Major Brazilian soybean-growing regions were formerly concentrated in the south, relatively near the principal ports. In recent years, soybeans have expanded into the vast farmland of the center-west States, as infrastructure improvements have cut internal transportation costs. Brazil's vast reserves of farmland will permit significant expansion in soybean area once prices strengthen. Argentina's soybean-growing regions and crushing mills are located close to port facilities, and the relatively small domestic market makes it the world's largest exporter of soybean meal and oil. Brazilian and Argentine soybean and meal exports are projected to capture market share from the United States in the next decade.

U.S. export share less dominant as South American soybean output expands

Mil. metric tons (soybean meal equivalent)



Source: Foreign Agricultural Service, USDA.

China is the world's fourth-largest producer of soybeans. Major Chinese soybean-growing regions are concentrated in the country's northeast. Yet rapid growth of China's economy has spurred food consumption, turning the country into a leading soybean importer. More growth is likely, as China's per-capita consumption of meat and oils is still well below developed-nation levels. Changes in China's agricultural and trade policies have greatly influenced world oilseed markets. The anticipated accession by China to the World Trade Organization will reduce import barriers on vegetable oil. Once a WTO member, China is likely to experience lower internal oil prices and profit margins for oilseed crushing as a result of sharply higher oil imports, which would in turn favor imports of oilseed meal over oilseeds.

The European Union is self-sufficient in vegetable oil production, but its protein meal deficit still makes it the world's largest import market for soybeans and soybean meal. Since the 1960s, EU imports of soybeans swelled because of rapid growth in livestock production and duty-free concessions signed in world trade agreements. But in the 1970s and 1980s, consumption slowed and EU agricultural policies subsidized a large expansion in domestically produced rapeseed and sunflowerseed, which eroded the market for foreign oilseed imports. The U.S. government challenged these subsidies, and in 1992 the EU committed to reforms of its Common Agricultural Policy (CAP), including area limits on the planting of oilseeds. Following further reforms of the CAP, low prices have prompted EU farmers to scale back oilseeds planting recently. Within 3 years, direct payments to oilseed producers will be incrementally reduced by a third (to

equal the payment that grains producers receive), which could further discourage EU oilseed production.

Historically high import tariffs on cereals had boosted EU consumption of soybean meal, which has been favored by duty-free access for soybeans. But in coming years, EU grain supplies are projected to swell and the CAP reforms will allow EU grain price supports to fall even more. Despite very low meal prices, the reduction in the relative cost of feeding grains should cut EU soybean meal consumption and imports in the future. The relative weakness of European currencies against the U.S. dollar has also deterred imports of soybeans and soybean meal.

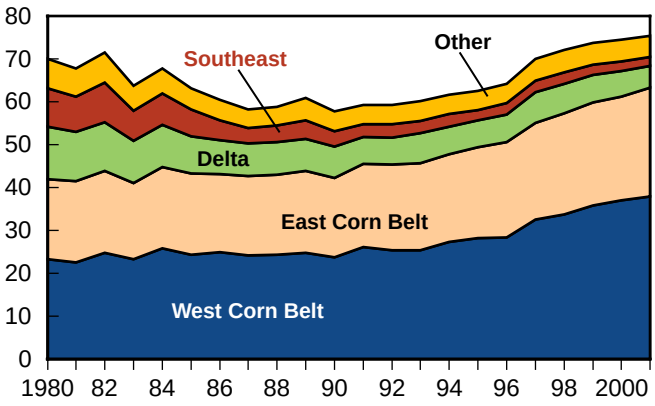
Under NAFTA, Mexico reduced its soybean import tariff from 15 percent to 10 percent in 1994, and will phase it out completely by 2003. With reforms in domestic crop support programs, imports have virtually displaced domestic soybean production in Mexico, with nearly all of the imports coming from the United States. Since 1993, U.S. soybean exports to Mexico have doubled. Strong income growth in Mexico's economy has boosted consumption of meat and vegetable oil, which consequently raised soybean processing. Improvements in Mexico's rail links at the border have also expedited soybean trade.

Prices and Farm Returns

In spite of several years of relatively high prices, U.S. soybean acreage stagnated in the 1980s largely due to farm program features for other crops. At that time, farmers were reluctant to risk future government payments on program crops (such as corn and wheat) for any temporary advantage in planting soybeans. Deficiency payments were paid based on historical plantings and yields of specific crops, which did not include soybeans and minor oilseeds. In fact, when other grain crops were in oversupply and the government implemented its acreage reduction programs for them, quite often soybean plantings would slip as farmers would preserve their program base acreage. Soybean prices were higher because of this program distortion, which encouraged expansion of acreage in South America. In the 1990s, U.S. farm legislation was reformed to promote greater planting flexibility, making expected market returns the major determinant of farmers' cropping patterns. Nearly all supply controls on U.S. field crop production (which were tied to deficiency payments) were eliminated in 1996. Now, when prices increase because of rising world consumption or smaller harvests by export competitors, U.S. producers can respond by planting more soybeans.

Improved planting flexibility following 1990 farm legislation allows U.S. soybean acreage to expand by a third

Mil. metric tons (soybean meal equivalent)



West Corn Belt includes Iowa, Missouri, Nebraska, Kansas, North and South Dakota, and Minnesota.

East Corn Belt includes Illinois, Indiana, Michigan, Wisconsin, and Ohio. Delta includes Arkansas, Louisiana, and Mississippi.

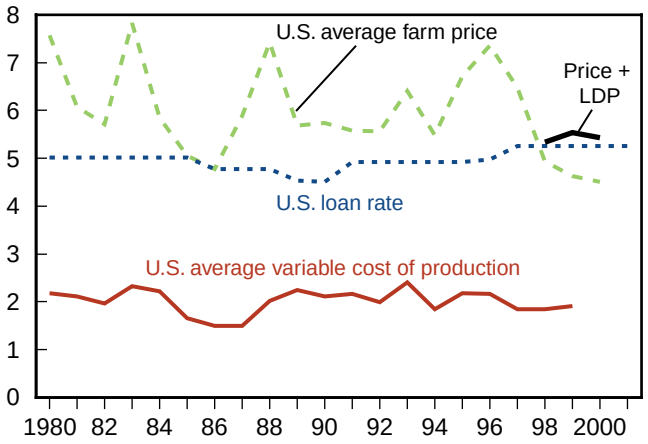
Southeast includes Alabama, Florida, Georgia, North and South Carolina.

Source: National Agricultural Statistics Service, USDA.

Consequently, U.S. soybean acreage has increased each year since 1992, in part because of comparatively favorable market returns during the early and mid-1990s. Much of the expansion occurred in traditional wheat-producing areas. Steadily rising yields, a greater number of half-corn/half-soybean rotations, and low production costs (partly due to widespread adoption of herbicide-tolerant varieties) have also favored expansion of soybean acreage. Despite the lowest market prices since 1972, U.S. farmers planted a record 75.4 million acres of soybeans in 2001, which is a third higher than the 1990 acreage. Much higher per-acre costs to fertilize corn also discouraged some corn planting in favor of soybeans.

While planting flexibility has been successful in expanding soybean acreage when prices are rising, a contraction in acreage when prices fall has been less forthcoming. A major factor inhibiting a cut in U.S. soybean area is the marketing assistance loan program, which was first instituted for soybeans in 1991 but has become relevant only with the low prices of the last 3 years. USDA announces a national average loan rate each year prior to planting and determines county loan

Soybean prices and costs



Source: Economic Research Service, USDA.

rates available to oilseed farmers. The marketing loan provides benefits or direct payments (loan deficiency payments or LDPs) to cover the difference between the market-clearing price and the announced commodity loan rate whenever the price falls below the loan rate. Farmers are guaranteed a per-bushel revenue floor regardless of how low market prices fall. Many farmers have even been able to achieve per bushel returns somewhat above the loan rate, by timing their LDP when cash prices are the lowest relative to the loan rate and then selling the crop later at a higher price. Although market prices are not supported, LDPs and marketing loan gains became particularly important in providing income support following sharp price declines in crop years 1999 and 2000, when soybean producers received $2.3 billion and $2.4 billion, respectively. Thus, U.S. farmers have been insulated from falling market prices and have had little incentive to scale back soybean planting.

With low prices encouraging higher consumption, U.S. exports and domestic use of soybeans have surged to record volumes, but increases in demand have not been enough to keep prices from falling further. Not all of the price pressure is entirely due to U.S. supplies. Very low costs of production and currency devaluation in Brazil have allowed South American farmers to resist reductions in soybean planting. In fact, with the very high yields of the last 3 years, South American soybean production expanded nearly 20 percent. World soybean stocks have accumulated since 1998, when a sharp decline in Asian economies curbed demand. World demand has subsequently rebounded, but the growth in output has temporarily outpaced growth in consumption.

POLICY CHOICES

Issues for Consideration

The following section discusses some of the proposed modifications of agricultural policy provisions that would affect oilseeds.

Marketing Assistance Loan Program. The marketing loan program would be retained under many proposals, with some changes. Some advocate a change in the current eligibility for locking in an LDP after harvest to any time after planting, which could allow some producers more flexibility to maximize their payment when prices are seasonally higher. To lower the comparative returns for soybeans to a more historic level, many proposals would raise loan rates for other crops relative to the soybean loan rate. Currently, the loan rate formula is not in effect as the Secretary of Agriculture has used authority to maintain the loan rate at the statutory maximum of $5.26. This effectively keeps more acreage in soybeans, as the loan rate formula would have reduced the loan rate to $5.17 in 2000 and to the $4.92 minimum in 2001. One plan would retain this authority, but change the current law's minimum loan rate of $4.92 per bushel to $5.26. As under current law, if prices eventually increase, the loan rate would adjust upward to 85 percent of the season average price for the previous 5 years (excluding the high and low prices). If higher loan rates for other crops succeed in reducing soybean acreage, it could support market prices (depending on the foreign production response) and limit LDP's for soybeans, although payments for these other crops could increase. The setting of loan rate minimums can be viewed as arbitrary and incapable of signaling a new response to short-term market conditions. So, adjusting loan rate minimums may only alter which commodities are in greatest disequilibrium.

Production Flexibility Contract (PFC) Payments. Payments under Production Flexibility Contracts (PFCs) are based on historical base acres and yields, and are thus completely decoupled from current production decisions. Likewise, market loss assistance payments (MLA) under the emergency ad hoc assistance bills have been tied to historical base acreage and payment yield. As such, neither of these payments necessarily goes to current crop producers, but to those who own farms with base acreage. Since oilseeds were not a part of the former system of crop base acres, none of the fixed PFC or MLA payments that farmers now receive are based on past oilseed acreage. To compensate oilseed farmers experiencing poor market conditions, the government authorized $475 million in oilseed assistance in 1999 and $500 million for 2000 crops. Some proposals would formally include oilseeds into the PFC payments by adding $0.5-$1.7 billion to current annual expenditures of $4 billion. These new PFC payments would be based on a farmer's oilseeds acreage and yield for a previous time period.

Countercyclical Income Support. Some have criticized the fixed PFC payments as being an inadequate response during times of greatest need. Instead of passing annual emergency economic assistance bills, supporters recommend a new program to offset crop revenue shortfalls due to poor yields or low prices. Generally, the plans would initiate countercyclical payments whenever some measure of national or regional program crop income per acre fails to meet a minimum percentage for a fixed-base reference period. There are several approaches for the countercyclical payments that differ on the specifics of the trigger mechanism.

In contrast, some groups call for a complete return to mandatory or voluntary supply management policies, such as acreage idling and grain reserves, to support commodity prices above total costs of production. But numerous studies have documented how supply restrictions discourage exports, raise production costs, and disrupt local agricultural economies. Previous experience with the farmer-owned reserve has identified the difficulty of raising prices over the long term through stock management. Supply controls also overlook the response of foreign producers to expand output when U.S. prices rise, requiring ever tighter restrictions (or even import barriers) to maintain farm price levels. Brazil alone has undeveloped farmland potential that exceeds the acreage that the United States currently plants to both soybeans and corn. That acreage could easily be brought into production with higher prices. The high Federal costs of storage subsidies would only be exacerbated as uncompetitively priced U.S. crops lose export market share.

Conservation Payments. The incomes of many farmers are supplemented by environmental payment and cost-share programs including the Conservation Reserve Program, the Wetlands Reserve Program, and the Environmental Quality Incentives Program. The services that farmers render include reducing soil erosion and groundwater pollution, restoring natural wetlands from

farming, and improving wildlife habitat. Some critics have charged that the primary objective behind previous conservation programs was to support farm prices and incomes by taking land out of production, while a comprehensive and cost-effective delivery of environmental benefits was secondary. In response, under most proposals, conservation program payments would be continued but with better targeting to all farmers that achieve real environmental benefits and a broader scope of goals, such as green space preservation and carbon sequestration (to resist global warming from greenhouse gases).

Other Issues. All agricultural programs support farmland values. Despite low market prices, government payments have sustained cash flow, and the balance sheets of many farmland owners have remained relatively strong. Thus, the value of farm assets can affect borrowing, leasing, and transfer decisions. Farms with large equity are better able to withstand periods of low prices than farms with high debt or more modest net assets. Higher land values also lead to higher cash rents for tenant farmers, raising their costs of production. Many young farmers get their start by inheriting property, so estate taxes can be another hurdle in preserving some large family farms. Some question the fairness of having the largest and most efficient farmowners reap the bulk of government subsidies while smaller, full-time farm operators receive too little support to remain financially viable, so targeting of payments may be a focus of debate. Conversely, some farm groups would eliminate all payment limitations on farm programs because of their ineffectiveness and high administrative costs.

Biodiesel has been promoted as a way to improve air quality, and advocates contend that including it in a renewable fuels program would support domestic consumption of vegetable oils and farm prices for oilseeds. In a new bioenergy program, USDA will make $300 million available to eligible bioenergy producers (including biodiesel) in fiscal 2001 and 2002 to offset a portion of their commodity purchases needed to expand production and capacity. Similarly, research that supports development of environmentally friendly agricultural-based materials (such as biodegradable lubricants, adhesives, plastics, and inks) may result in new, commercially significant product markets for oilseed producers.

Supporters of P.L. 480 would like to see annual funding increased to at least $2.2 billion (compared with $1.1 billion in fiscal 2001), citing benefits of higher domestic prices and savings on loan deficiency payments.

WTO Compatibility

In the last decade, U.S. bilateral and multilateral trade agreements such as NAFTA and the Uruguay Round Agreement on Agriculture (URAA) have widened access to foreign oilseed and oilseed product markets. Under the URAA, countries agreed to reduce the volume and value of export subsidies, lower average import tariffs, and eliminate import quotas.

Yet, maintaining commitments for minimizing distortions to international trade also constrains the design of domestic agricultural supports. Policies linked to current production (such as price supports, input subsidies, and marketing loan benefits) can induce overproduction of crops, which affects imports and exports. The United States and other developed nations also agreed to limit, by the year 2000, the aggregate value of trade-distorting domestic farm supports (the so-called amber box) to 80 percent of a 1986-88 base ($19.1 billion in 2000). An extension of NAFTA to the rest of the Western Hemisphere or a new WTO round of trade negotiations will likely involve further reductions in export subsidies, tariffs, and domestic agricultural supports.

Government programs that are decoupled from current agricultural prices, production, and resource use do not count toward the maximum allowable limit on trade-distorting support. These “green box” programs have the smallest effect on production and trade and for the United States include domestic food aid, conservation payments, natural disaster relief, and PFC income supports. If based on historic rather than current prices and production, a countercyclical income support program, its advocates believe, would also meet these criteria.

The United States has notified the WTO that crop market loss assistance payments (MLA) mandated by recent emergency legislation are non-product-specific amber box payments. As with the green box PFC, each producer’s share of the total amount of MLA available in a given year is determined by past program participation and not by current production or resource use. MLA payments are distributed, in fact, in proportion to PFC payments. However, the PFC totals were predetermined by the 1996 Farm Act while the MLA payments were legislated annually in response to recent market price experiences. Consequently, the MLA payments may be assumed to be related to market prices after the PFC (or WTO) base period, making the MLA ineligible for the green box.