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China: Agricultural Output on the Upswing

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An Intelligence Assessment

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August 1986*

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An Intelligence Assessment

This paper was prepared by [Redacted]
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**China:
Agricultural Output
on the Upswing**



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Key Judgments

*Information available
as of 7 July 1986
was used in this report.*

In 1985 China experienced the seventh consecutive year of record agricultural production and became a net grain exporter for the first time. The improvement in agricultural output in recent years came about through a program of reforms designed to encourage peasant initiative. Continuing with policies to maximize rural initiative and expand free market farm sales, Beijing saw important gains last year:

- The value of overall agricultural output rose 3 percent.
- Nonstaple agricultural production rose rapidly, with oilseeds, tobacco, and sugar all up more than 30 percent over 1984. Meat, vegetable, and egg output were reported significantly higher as well.
- Despite a 7-percent drop in grain production, grain exports tripled to over 9 million tons, while imports declined 45 percent to about 5.4 million tons. Japan and the Soviet Union both doubled their purchases of Chinese corn and signed long-term trade agreements with Beijing.

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Despite the overall success, Chinese agricultural planners faced some serious problems as a result of policies adopted last year:

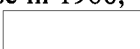
- Decontrol of meat and vegetable prices, reduction of grain subsidies, and promotion of rural free markets led to spot shortages, official confusion, and an average 35-percent hike in food prices.
- Released from mandatory production quotas, Chinese farmers cut back grain production sharply, concentrating on more lucrative crops or industrial endeavors.
- Responding to these problems, Beijing instituted corrective policies that further dampened peasant willingness to make long-term investments in farmland.

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Reacting to the grain shortfall in 1985, Beijing is implementing an incentive package to rekindle peasant enthusiasm for grain production. The reformers realize another decline in grain output in 1986 would be politically dangerous, and are determined to implement policies that will ensure a rise in production this year. We expect that revised policies to encourage grain production, increases in acreage allotted for grain, and good weather will return overall grain output to an upward course in 1986, although at a slower rate of growth than in the recent past.

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The recently adopted five-year plan envisages about a 4-percent growth rate in grain output between 1986 and 1990, but we expect the Chinese will find it difficult to reach this goal unless they adopt measures that will

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increase the profit margin on grain production. Nonstaples, especially meat and poultry, will continue growing steadily, but we expect increased supplies to be offset by the growing demands of Chinese consumers for more and better quality produce and for processed foods. 

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For the United States, China's agricultural reform policies offer both costs and opportunities. United States agricultural producers will find the Chinese to be tenacious competitors for corn exports to countries in the North Pacific, and it will be difficult for US farmers to recover market shares already lost. Faced with declining oil revenues, Beijing will continue to press corn exports to Northeast Asia to earn foreign exchange, and we expect the Chinese to go to considerable lengths—including suppression of domestic demand—to maintain their market share. We also see little likelihood that US wheat exports to China will return to levels of a few years ago, at least in the short term. 

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The longer range outlook is more promising. China's food needs are enormous, and the sophistication of the market is growing. We expect that, as China's meat and dairy industries expand, the United States will have opportunities to sell breeding stock, livestock-raising technology and products, and food-processing equipment on a larger scale than at present. Sales of US timber and wood products to China have grown considerably in recent years, and we expect this trend to continue. The Chinese also will be looking to the United States for seeds, pesticides, and assistance in agricultural science and technology. Finally, judging by the construction of new grain storage facilities in Chinese ports and by our estimate of China's longer range food needs, we believe that Beijing will eventually begin importing US grain again, in modest quantities, mainly to ease rail transportation problems and to help satisfy the growing demand for wheat products by Chinese consumers. 

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**China:
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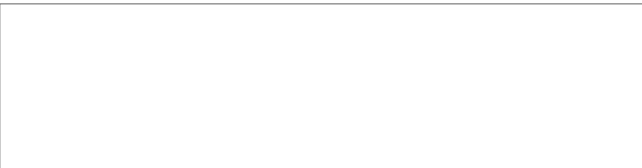
Agricultural Trends in 1985

Seven consecutive years of record agricultural production, capped by a strong performance in 1985, have brought China a surplus of agricultural goods and marked it as a potential power in world commodity markets. Despite a 7-percent drop in grain output in 1985, agricultural output, as reported by the State Statistical Bureau (SSB), increased by 3 percent over 1984. China's output of oilseeds, vegetables, and livestock increased dramatically in 1985. Also, grain exports tripled, making China, for the first time, a net grain exporter.

Chinese officials insist that pragmatic reforms that encouraged peasants to make production and marketing decisions were largely responsible for the improvements in the agricultural sector (see inset). Certainly the causes of the agricultural boom are more complex than that, but the results of these reforms have been impressive.¹ Agricultural output in 1985 was nearly twice that of 1979, the first year of reform (see figure 1).

With reform, emphasis on grain production as the "key link" in agriculture has been reduced and the rural economy diversified, bringing unprecedented prosperity to the countryside. According to the SSB, between 1981 and 1985 the average per capita rural income grew 11.7 percent per year, and in 1985 a Chinese peasant, on average, earned 397 yuan (\$123), compared with 134 yuan in 1978. In contrast, average urban income increased by only 8 percent annually during the same period. Since 1979 over half of

China's rural households have moved into new homes. Rural consumption of animal-protein sources has more than doubled, and purchases of household appliances, bicycles, and other light manufactures also have increased.



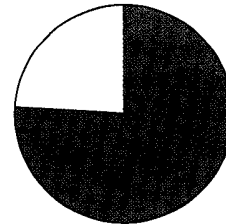
**Figure 1
China: Agricultural Output,
1979 and 1985**

Percent

1979

187 billion yuan

Livestock, forestry,
and fisheries
24



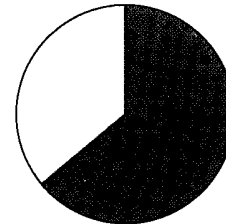
Field crops
76

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1985

357 billion yuan

Livestock, forestry,
and fisheries
36



Field crops
64

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a Compared at 1980 constant prices.
Source: Chinese State Statistical Bureau



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Although reform policies have been good statistically for Chinese agriculture, difficulties in their implementation have emerged. A 35-percent increase in food prices last year and corruption by local leaders were only the most publicized of these problems.

Judging from provincial statistics and scattered local press reports, we believe last year's policies, which combined the traditional program of consumer product subsidies and production controls with a new emphasis on free markets and the rule of supply and demand, resulted in unexpected shifts in the type and quantity of agricultural goods that were produced. Beijing's planners have told Western reporters that last year taught them a great deal about prices, supply and demand, and how difficult it will be to bring in policy measures that institute the positive aspects of the free market (incentives), without relinquishing control of the economy. [redacted]

Growth Sectors

Freed from state-ordered demands to grow grain, China's peasants turned to more profitable enterprises in 1985. Many converted their grain land to various types of cash crop production. Oilseed production rose by one-third in 1985 to 15.78 million tons, a new record. Consumer demand for vegetable oil, however, still far outstrips supply, and producers responded this year with a 9-percent increase in acreage. Sugar and tobacco production each increased by over 30 percent last year because of greater sown area and improved yields. Jute and hemp output jumped 128 percent in 1985, reflecting an increased demand, both domestically and internationally, for gunnysacks. [redacted]

China's retail food markets were in turmoil in 1985, as the "second-stage reforms" required peasants to sell their nonstaple crops—meat, vegetables, and fruit—on the open market. Meat and vegetable prices jumped over 30 percent after the reforms were instituted in April. Although there were scattered shortages reported after the free market policies were implemented, the situation stabilized by yearend and the Chinese media report that the quantity, variety, and quality of these products have improved since the state relaxed price controls. A survey sponsored by the Chinese Xinhua news organization determined that in

most cities increasing numbers of independent vegetable peddlers brought about an improvement in the variety, quantity, and quality of vegetables, as well as in the convenience of daily shopping. [redacted]

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Price decontrol and higher pork prices stimulated an increased interest in hog production. Red meat output, mostly pork, increased by 14 percent to 17.5 million tons in 1985, and yearend hog inventories were 8 percent higher than in 1984. Although China has always been a producer of large, fatty hogs, consumer tastes are quickly moving toward leaner meats, and high lean-meat prices are challenging hog producers to raise leaner pigs. [redacted]

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The poultry sector has expanded rapidly, growing at an annual rate of 18.2 percent over the last five years. Egg production in 1985 was over 100,000 tons, making China the world's leading egg producer. The strongest growth is taking place near large cities, where households specializing in poultry, meat, and egg production can find a ready market. [redacted]

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The success of earlier reforms is also changing China's dietary habits. Larger incomes have brought increased demand from Chinese consumers for convenience foods, and 1985 saw substantial growth in the output of some types of processed foods. The output of beer, canned juices, and other processed drinks increased by 60 percent in 1985, and still could not meet demand. According to Xinhua, purchases of breads and noodles by urban residents increased 18 percent in 1985, accounting for 10 percent of each individual's grain consumption. The output of animal feedstuff jumped significantly last year and is expected to grow even more dramatically in coming years as Chinese meat consumption increases. [redacted]

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Declining Grain and Cotton Output

One of the most disturbing consequences of the new policies—to Chinese leaders—was declining interest in grain production. Attracted by higher profits, peasants devoted more resources to cash crop production, with the result that grain output fell by 7 percent to a total 1985 output of 379 million tons (see figures 2 and 3). Crop damage from floods and other adverse

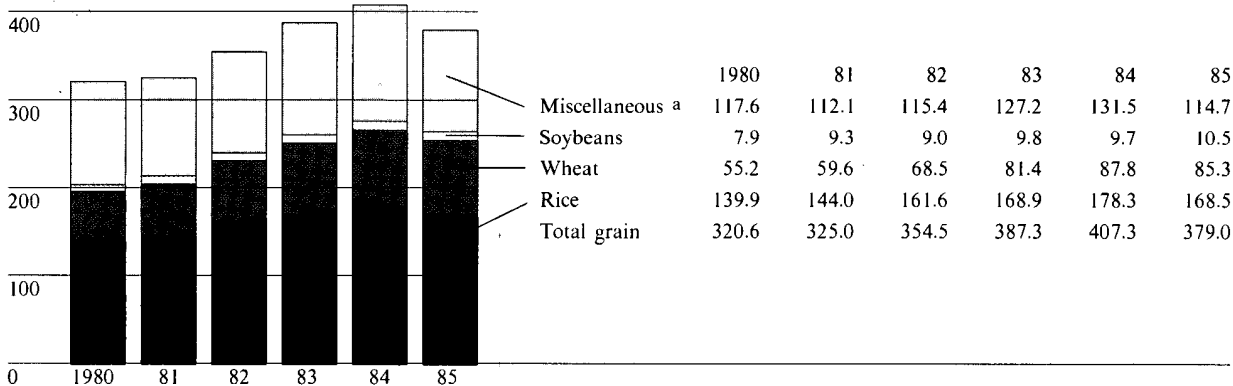
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Figure 2
China: Grain Production, 1980-85

Million metric tons

500



a Includes tubers, corn, sorghum, millet, oats, buckwheat, barley, peas, beans, and other legumes.

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weather conditions were also factors in the grain shortfall (see figure 4). Early in the year, Chinese press reports indicated that Beijing planned to decrease grain area by 2.5 million hectares in 1985, evidently believing that rising per unit output would offset production area decreases and keep 1985 grain output near the 1984 level of 407 million tons. Press reports also indicate that farmers, anticipating lower profit margins for grain, planted 4.5 million fewer hectares of grain in 1985, nearly twice the decrease Beijing originally planned. Also, profit-conscious peasants used lower levels of costly production inputs such as fertilizer and energy, causing per hectare yields to fall for most grain crops (see appendix A).

Cotton output dropped by one-third in 1985 to 4.15 million tons. After two years of bumper cotton harvests, China has a huge cotton surplus, and Beijing engineered the cut in 1985 cotton production by reducing procurement prices and quantities.

Reacting to last year's shortfall, Beijing is implementing an incentive package to rekindle peasant enthusiasm for grain production. The motive for this program—which includes input subsidies and procurement policy changes—is largely political. The grain drop became a strong issue in the fall of 1985, when party conservatives pointed to falling grain output as an example of how reforms were endangering central planning and social control. The reformers fended off criticism by blaming bad weather and by pointing out that, even though grain output was down, gross agricultural output reached record levels. Furthermore, some evidence suggests that grain production may have fallen more than the 7-percent drop reported. In any case, the reformers realize another decline in output in 1986 would be politically dangerous and are determined to implement policies that will ensure a rise in production this year.

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Figure 3
Grain Output in 1985



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Figure 4
Precipitation as a Factor in the 1985 Grain Decline



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Confidential**Agricultural Trade in 1985**

China has had a positive net agricultural trade balance the last three years (see figure 5). Two factors contributed to the sharp drop in agricultural imports in recent years: increased domestic grain production—which reduced China's dependence on foreign grain—and official restrictions on foreign purchases. The jump in corn, cotton, and soybean exports was the strongest factor in the recent upswing in Chinese agricultural exports. [redacted]

Imports. Chinese grain imports declined 45 percent in 1985, falling from 9.8 million tons in 1984 to 5.4 million tons. Wheat is China's principal import grain, and good domestic wheat harvests allowed China to further reduce its dependence on imported wheat. Imports of US wheat fell by 80 percent in 1985 (see figure 6). [redacted]

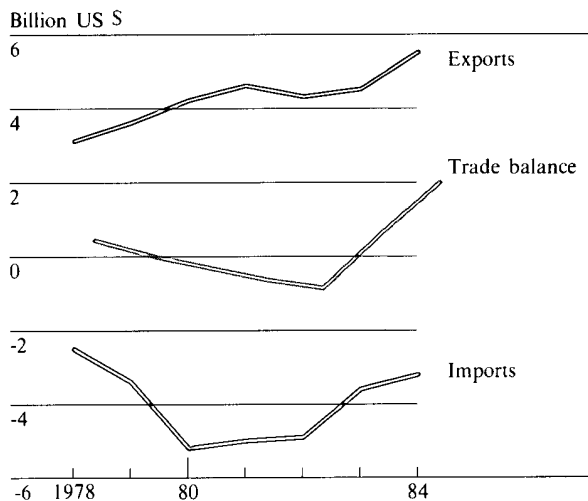
China's imports of other US agricultural goods have increased, however. The numbers of breeding livestock—hogs, dairy cattle, beef cattle, and poultry—shipped from the United States to China have increased. China also is importing more US cattle hides to meet the growing demand—in domestic and export markets—for leather goods. [redacted]

Exports. According to Chinese Customs statistics, grain exports tripled in 1985 to over 9 million tons, making China a net grain exporter for the first time. Cotton exports nearly doubled in 1985, totaling 347,000 tons. [redacted]

Corn was the major export grain, and, despite an estimated 12-million-ton decline in output, 6.2 million tons were exported in 1985. After summer floods damaged much of the corn-producing northeast, the region's provincial leaders halted domestic shipments of coarse grains and focused production and sales efforts on international markets. Press reports suggest that Beijing encouraged local leaders to limit domestic sales and to push grain exports to earn foreign exchange. [redacted]

Corn exports went mainly to Japan and the Soviet Union. China sold 2.5 million tons of corn to Japan in 1985, more than doubling the amount exported to

Figure 5
China: Farm Trade, 1978-84



a USDA estimate.

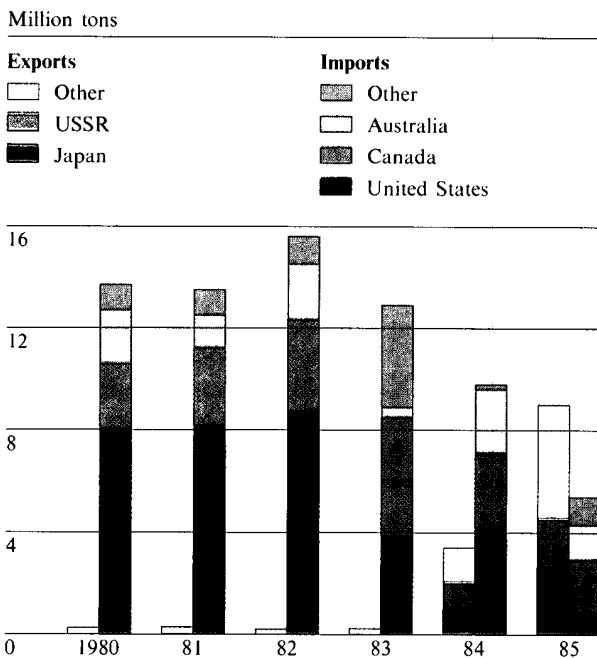
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Japan in 1984, and providing 20 percent of Japan's corn imports. Japan has a five-year trade agreement to buy Chinese corn, and Japanese importers have reduced their purchases of US corn, saying Chinese corn is of better quality. The fact that China represents a newly opening marketplace for Japanese exports and Japan needs to reduce a large trade surplus with China in order to garner Beijing's good will probably also encouraged the Japanese to increase Chinese grain imports last year. The Soviet Union bought 2 million tons of corn and soybeans from China in 1985 and also signed a long-term trade agreement. Most of the imported grain goes to feed livestock in the Soviet Far East. Indonesia is another substantial importer of Chinese agricultural goods, and in 1985 China supplanted the United States as Indonesia's largest supplier of soybeans. [redacted]

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Figure 6
China: Imports and Exports of Grain
by Source, 1980-85



a Estimated.

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Policy Changes in 1986

In developing agricultural policies for 1986, Beijing is most concerned about ways to increase grain output and encourage private investment in agriculture. Official press commentaries have warned that the movement of capital and resources out of grain production and into other, more profitable sidelines in recent years is endangering the long-term stability of China's agricultural economy and must be reversed.

To increase grain production incentives, Beijing instituted a program of subsidized inputs and changed the state's procurement plan for 1986. These policies, which left the responsibility for implementation to local-level officials, included:

- Subsidized prices and guaranteed supplies of fertilizer and fuel for grain producers.

- Loan discounts for grain growers.
- A procurement plan that allows peasants to sell more of their grain to the state at higher prices.

Earlier this year, Beijing indicated in official and press reports that the rapidly expanding rural industrial sector might be tasked to provide financial assistance to grain producers. Although no official policy line was established, Beijing gave local officials the go-ahead to tax rural industries in order to support grain subsidy programs.

These directives—which have also encouraged rich peasants to “volunteer” their wealth to assist in public works projects and to help others become rich—have spawned rumors among peasants that Beijing intends to recollectivize agriculture. Local media reports indicate that a great number of peasants who benefited from the earlier policy changes are demoralized and fear the state will both reduce investment in agriculture and reverse its policies of promoting family farming and rural free markets. In response, Beijing has directed local officials to assure the peasantry that there will not be a return to communes, and that state investment in agriculture will increase in 1986. The peasants were also encouraged to invest more of their labor and resources in grain production. The spate of rumors, directives, and public assurances makes clear that policy instability and public uncertainty persist in the countryside. Many rural entrepreneurs and peasants are holding back from investing time and resources into new types of business activity until they can determine the direction of Beijing's long-term policy plans.

The Production Outlook

According to He Kang, China's Minister of Agriculture, agriculture is on an “upward trend” in 1986, and good harvests of grain, cotton, and cash crops are expected. After a dry, warm winter, generous spring rains set the stage for what appears to have been a good spring planting season.

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Officially reported crop acreages and conditions are better than last year. Xinhua reported that, despite delayed planting because of wet weather, 24.7 million hectares of winter wheat have overwintered safely, and this is a slight increase over 1985's wheat area. Although exact planted grain area figures are unavailable, a recent official survey among rural households showed an increase in the planted areas of other grain crops as well. Soybean area is reported up by nearly 14 percent, and corn also increased significantly. Overall, grain area is expected to increase by nearly 2 million hectares in 1986, reversing a decline of 4.5 million hectares last year. The production area for rapeseed, China's main oil crop, is reportedly up by 11 percent, and sugar acreage is also expected to increase. Press sources indicate that the peasantry has added to crop production area by increasing the amount of land that is double-cropped, and by putting back into production marginal land that was not farmed last year. [redacted]

The Chinese expect 1986 grain output to approach 1984's record output of 407 million tons. Although we expect some increase in grain output this year, we are skeptical that the policy incentives to grow more grain will be that effective. Despite improved fertilizer and loan subsidies, grain production is still less profitable than other activities. To date, we have not seen any indication of a substantial shift of private capital and resources back into grain production. Rural residents still appear to be focusing mainly on profitability. [redacted]

Over the longer term, we expect Chinese grain production to continue to increase, but at a slower pace than in the last six years. The Seventh Five-Year Plan (1986-90) set a grain production target of 425-450 million tons by 1990. Reaching 450 million tons will require a growth rate equivalent to that registered in the Sixth Five-Year Plan. We believe, however, it will be difficult to reach this goal unless Beijing implements at least one of two options: make grain production a more profitable activity—by increasing procurement prices or by allowing the market more freedom—or develop policies that will force peasants

back into grain production. Unless this year's measures achieve significant growth in grain production, political pressure will grow to require farmers to produce more grain. [redacted]

The Trade Outlook

Chinese agricultural trade in 1986 will probably follow the pattern established in recent years—increasing exports and declining imports. We believe, however, that the rapid decline in Chinese purchases of US farm goods will ease this year. Given the fact that the principal Chinese complaint about US grain has been its price, the falling dollar and lower US grain prices should make US exports more competitive. Moreover, China needs feedgrains to support its expanding livestock industry and has already purchased over 200,000 tons of US soybeans this year, the first soybeans sold to China in several years. China also needs wood products—both logs and lumber—to support its construction boom, and US wood product exporters expect a jump in sales to China in 1986. [redacted]

Beijing appears determined to increase agricultural exports in 1986 to offset the recent losses in foreign exchange earnings caused by the drop in oil prices. Press releases indicate that Beijing has given each of the corn- and soybean-producing provinces a 1986 export quota, and during the first three months of this year most of these provinces have doubled their exports over last year. We believe that China will sell as much grain as can be pushed through its overcrowded ports while waiting to see how this year's crop turns out. If the crop looks good, we expect the export total to equal or increase slightly over 1985. If bad weather or other problems bring poor harvests, we believe China will have to pull back on its export plans to maintain sufficient domestic grain stockpiles. [redacted]

Beijing, in a recent press publication, discussed the importance of developing a long-term trade policy program for China. Although He Kang and other

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Agriculture Ministry officials are optimistic about the potential of agricultural exports as a foreign exchange earner, they stated that they realize the demands of China's growing economy will restrict the growth of exports. [redacted]

basis, and US farmers will find them increasingly competitive in these newly established markets.

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Because of its need for foreign exchange, and because grain has proved in recent years to be a viable and profitable export commodity, we believe the Chinese will continue to push for moderate increases in grain exports. Beijing recently announced plans to build a series of bases for growing export crops. Most of these bases are located in the northeastern provinces and have contracted to grow corn and soybeans. China has proved a competitive seller of these products to Korea, Japan, and the Soviet Union. Beijing realizes it has little chance of being a worldwide marketer of grain but is determined to maintain and build on its position as a stable, long-term supplier of grain to these nearby countries. [redacted]

Although US wheat sales to China in 1986 are not likely to increase significantly over 1985 sales, some US exporters will be encouraged by the Chinese markets for other agricultural goods. The sales of lumber, cattle skins, and soybeans should increase in 1986. The Chinese will also be looking for breeding stock, seeds, and some specialized chemical pesticides. Most of all, the Chinese need Western knowledge and equipment to develop and systematize their food production and processing industries. Various types of food-processing equipment and flour- and corn-milling equipment—especially used machinery—are of interest to the Chinese. [redacted]

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Even as China strengthens its potential as a grain exporter in North Asia, Beijing is taking steps to prepare for an increase in grain imports. Several ports are improving their facilities for unloading imported wheat. Although wheat imports have fallen in recent years, domestic demand is growing rapidly and Chinese officials have admitted that an increase in Chinese wheat imports is expected. [redacted]

Aside from coarse grain sales in North Asia, the United States is not likely to face serious competition from the Chinese in world agricultural trade any time soon. In our estimation, China is not destined to become a major world exporter of agricultural commodities. Indeed, we believe China will have difficulty meeting its growing food demands with domestic production, and eventually will again turn to the United States and other agricultural powers to fill more of its needs for grain, wood products, livestock, and agrotechnology. [redacted]

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Implications for the United States

We believe US corn exporters will lose further ground to China in the battle for grain markets along the northern Pacific rim. Given China's determination to develop export markets wherever possible, and its willingness to sacrifice domestic consumption to maintain them, we expect a further increase in grain exports this year. Corn and soybean acreage is up substantially and, unless the northeast has another year of serious weather damage, it appears there will be a surplus of grain to export. The Chinese are in the corn- and soybean-exporting business on a long-term

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An Overview of Chinese Agricultural Reform

Chinese agricultural reform began in 1979 with the introduction of the peasant responsibility system. Until that time, all agricultural production was controlled by large rural communes and farm output was sold to the government, which in turn marketed the produce through state-run food outlets. Under the new program of reforms, communes were dismantled and individuals and families were allowed to rent farmland and to make their own production decisions. Furthermore, the state's agricultural procurement prices were raised as an incentive for farmers to increase production.

The second stage of reforms, implemented in 1985, eliminated state monopoly purchases of agricultural goods. The reforms permit peasants to sell part of their grain, cotton, and oilseed production to the state, the remainder being sold on the open market. State purchases of meat, vegetables, and fruit were eliminated, requiring peasants to sell all "nonstaple" food production on the open market.

Provincial Grain Output in 1985

Most of China's provinces experienced a reduction in grain output in 1985 (see figure 3). The greatest drop occurred in the northeastern provinces, where bad weather was blamed. Output also was down in China's southern region, probably because of a nationwide move out of rice cultivation by Chinese farmers. Press reports indicate that in the last few years rice production has become less profitable than most other crops, and when new reforms instituted this year gave peasants greater leeway in making production decisions, they shifted efforts into activities or crops that would make more money. Several provinces in the North China Plain had increasing outputs of grain in 1985, largely because this region produces corn, wheat, and high-quality rice, commodities that are in strong demand in China.

Weather as a Factor in the Grain Decline in 1985

Poor weather plagued sections of the country during the year and is partially responsible for the decline in grain output. The northeast was especially hard hit in August and September by typhoons and flooding, which damaged over 10 million hectares of corn, soybeans, and cotton (see figure 4). Although early Chinese press warnings of a 50-percent decline in crop output did not prove accurate, the US Embassy estimated that grain production in the northeast declined in 1985 by 10-12 million tons, most of which was corn. Also, drought and pest problems settled over the south-central region early in the summer and caused some injury to the rice crop. Stepped-up irrigation efforts helped avoid major damage, however.

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Appendix A

China: Agricultural Inputs, 1985 ^a

	Amount 1985	Growth Rate from Previous Year (percent)					
		1980	1981	1982	1983	1984	1985
Produced							
Chemical fertilizer ^b (million metric tons)	13.35	15.7	0	3.2	7.9	7.5	-8.6
Nitrogen (million metric tons)	NA ^c	13.3	-1.3	3.7	8.6	10.5	0
Phosphate (million metric tons)	NA	26.9	8.7	1.2	5.1	-5.3	0
Potash (metric tons)	NA	25	25	0	16	37.9	0
Chemical insecticide (metric tons)	205,000	0	-9.9	-5.6	-27.6	-6.8	-31.3
Conventional tractors (units)	44,600	-22.2	-45.9	-24.5	-7.5	7.3	12.3
Hand tractors (units)	NA	-31.4	-8.7	49.7	67.1	34.7	0
In use							
Conventional tractors (units)	864,000	11.7	6.3	2.5	3.5	1.6	1.2
Hand tractors (million units)	3.81	12.2	8.7	12.3	20.2	19.6	15.4
Rural electricity (billion kilowatt-hours)	51.2	13.5	15.3	7.3	9.6	6.2	10.3
Irrigation pumps (million horsepower)	78.5	4.8	0.5	2.3	2.3	-0.2	0
Chemical fertilizer (million metric tons)	17.8	18.4	5.2	13.4	9.7	6.8	2.1

^a Source: Chinese State Statistical Bureau.^b Nutrient content.^c Not available.

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Appendix B

China: Selected Agricultural Production, 1982-85 ^a

	Amount				Average Annual Growth ^b (percent)			
	1982	1983	1984	1985	1982	1983	1984	1985
Gross value (billion 1980 yuan) ^c	263.2	288.4	337.7	451.0	11.0	9.5	14.5	13.0
Grain (million metric tons) ^d	354.5	387.3	407.1	378.9	8.7	9.2	5.1	- 7.0
Cotton (million metric tons)	3.6	4.6	6.1	4.1	21.3	28.9	32.6	-33.7
Oil-bearing crops (million metric tons)	11.8	10.6	11.9	15.7	15.8	-10.7	12.3	32.5
Sugarcane (million metric tons)	36.9	31.1	39.7	51.4	24.3	-15.7	27.4	30.2
Sugar beets (million metric tons)	6.7	9.2	8.3	8.9	5.5	36.8	- 9.8	7.6
Jute, ambari hemp (million metric tons)	1.1	1.0	1.5	3.4	-15.9	- 3.9	46.1	128.1
Silk cocoons (thousand metric tons)	314.0	340.0	357.0	370.0	1.0	8.2	5.0	4.8
Tea (thousand metric tons)	397.0	401.0	411.0	440.0	16.0	0.8	2.6	6.0
Aquatic products (million metric tons)	5.2	5.5	6.1	6.9	11.9	5.9	11.0	12.5
Hogs (million head, yearend)	300.8	298.5	306.1	331.4	2.4	- 0.7	2.5	8.0
Sheep and goats (million head, yearend)	181.8	167.0	158.2	156.2	- 3.2	- 8.2	- 5.2	- 1.4
Large animals (million head, yearend)	101.1	103.5	108.3	113.8	3.6	2.3	4.7	5.0

^a Source: Chinese State Statistical Bureau.^b Based on unrounded numbers.^c Includes the output of rural industries.^d Includes potatoes, converted on a grain equivalent basis of 5 to 1.

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