

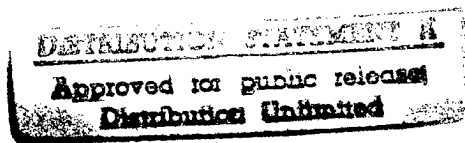
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6 OCTOBER 1986

China Report

AGRICULTURE



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CHINA REPORT
AGRICULTURE

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NATIONAL

MINISTER ON PROBLEMS OF FOREST ENTERPRISES

OWO41251 Beijing XINHUA Domestic Service in Chinese 1353 GMT 2 Sep 86

[By reporter An Yichao]

[Text] Changchun, 2 Sep (XINHUA)--Yang Zhong, minister of forestry said: Forest enterprises have experienced serious crisis in forest resources as well as economic difficulties. Decisive measures should be taken to change this situation as soon as possible. The fundamental way out for the forest industry lies in reforms.

Yang Zhong said this at the national discussion meeting on economic restructuring of the forest industry in state-owned forest zones which closed on 1 September.

He said: The resource and economic crises of China's forest enterprises have persisted for years. Since the 3d Plenary Session of the 11th Party Central Committee, forest enterprises have undergone readjustments and reforms, thereby solving some problems. However, the numerous problems that have accumulated over the years have yet to be completely solved. The current economic difficulties experienced by the forest enterprises are quite outstanding compared with other industries in China. Last year per-capita retained profit was about one-third that recorded by the metallurgical, machinery, petroleum, textile, and light industries in 63 major cities in China.

How to carry out economic restructuring of forest enterprises? Yang Zhong said: Most forest enterprises are located in high mountains, valleys, upper reaches of large rivers, and border areas inhabited by minorities. They are production units as well as major organizations for ecological protection. These units should receive full support, and efforts should be made to eliminate the shortcomings and exploit the advantages to give them vigor and vitality, and keep the beneficial cycle going. Therefore, the guiding thought and goals of forest enterprises should be to swiftly check the rate of deterioration, increase forest resources, and fully develop the economic, ecological, and social benefit of state-owned forest zones.

Yang Zhong stressed: Forest enterprises can acquire a period of recuperation and growth and start off a beneficial cycle through reforms, which should be linked up with and carried out simultaneously with the overall state economic

reform. Meanwhile, it is also necessary to maintain good relationship with the localities and the masses. Most state-owned forest zones in China live in impoverished mountainous areas and in areas where many minorities live together, and where forestry, agriculture, animal husbandry, and mining industry overlap one another. Many prefectures and counties rely on timber as their major source of financial revenues. Therefore, we should integrate the development of forest zones with the promotion of local economic prosperity and the masses' well-being. In dealing with the existing contradictions and problems, we should follow the principle of "dividing profits, not forests."

The discussion meeting was held by the Forestry Ministry at the Sanchazi Forest Bureau in Jilin Province. Participating comrades followed the general requirements of the state economic structural reform, took the present situation of forest enterprises into consideration, studied and discussed problems to be solved in the near future, and presented an initial program on the overall economic restructuring of the forest industry. Chen Junsheng, secretary general of the State Council, spoke at the discussion meeting.

/8918
CSO: 4007/520

NATIONAL

ACHIEVEMENTS REPORTED IN HARNESSING YELLOW RIVER

OW070822 Beijing XINHUA in English 0702 GMT 7 Sep 86

[Text] Zhengzhou, September 7 (XINHUA)--The Yellow River, which used to be known as "China's Sorrow" has neither breached its dike nor changed its course since massive harnessing work began in 1946.

Gong Shiyang, chairman of the Zhengzhou based Yellow River water conservation committee which is in charge of taming the river, described the success of the project as a miracle.

He attributed this to flood-control facilities built at a cost of five billion yuan (about U.S. \$1.35 billion). The money came from the central and local governments.

The 5,464-km Yellow River--China's second longest after the Yangtze--flows west to east through 9 provinces and autonomous regions.

The long and winding river carries downstream 1.6 billion tons of silt a year from the western arid highlands, causing serious soil erosion and raising the river bed above the surrounding ground on the lower reaches.

According to historical records, the river flooded more than 1,500 times before new China was founded in 1949.

"Over the past 40 years," Gong said, "professional water conservancy workers and millions of peasants have launched annual mobilizations to reinforce the 1,400-km dike along the river's lower reaches. Three times the dike has been raised by two to six meters."

Also, 5,000 flood control dams have been erected in that section and the water channel in these areas has been dredged to facilitate and flow of water into the sea.

Since the 60's, the Chinese people have completed work on the Sanmenxia gorge reservoir in Henan Province, which is able to control flooding on 92 percent of the river's 752,400 sq km basin.

Other new major flood-control facilities include two flood retarding basins in Henan and Shandong provinces on the lower reaches of the Yellow River. These new basins are capable of storing five billion cubic meters of water.

The construction of these facilities involved filling in 713 million cubic meters of earth and stone, enough to build 13 great walls, according to Gong.

"This has enabled the lower reaches to escape flooding even when the river reaches a flow rate of 22,000 cubic meters per second," Gong noted.

For example a flood with a flow measuring at 22,300 cubic meters per second passed safely in 1958 whereas a flood in 1933 with a flow of 20,400 cubic meters per second breached the dike in 54 places inundating 11,000 sq km of land and claiming 18,000 lives.

Gong said, "now, we've brought 100,000 sq km of land on the middle and upper reaches, or 20 percent of the total area suffering from soil erosion, under control by building terraced fields and reservoirs, and planting trees and grass."

This alone has reduced the amount of silt washed away into the river by 200 million tons a year.

"In the course of taming the river, the Chinese people are also trying to reap benefits from the projects," he said.

For example, Yellow River water is now being used to irrigate 4.67 million hectares of farmland in the river basin, more than five times the acreage in 1949.

In all, 27 billion cubic meters of water, 48 percent of the river's annual flow, is being diverted for drinking, irrigation and industrial production.

Since 1949 hydroelectric power stations with a total generating capacity of 2.54 million kw have been built on the upper reaches. These projects "also serve the purposes of irrigation and flood control," Gong said.

He also disclosed that celebrations will be held in October, after the summer and autumn flood peak passes, to mark the 40th anniversary of harnessing the Yellow River.

/8918

CSO: 4020/431

NATIONAL

OUTPUT VALUE OF 1984, 1985 WATER CONSERVANCY INDUSTRY COMPARED

Beijing ZHONGGUO SHUILI [CHINA WATER CONSERVANCY] in Chinese No 7, 15 July 86
p 30

[Text]

AREA	1985 GROSS OUTPUT VALUE (10,000 YUAN)	NET OUTPUT VALUE (10,000 YUAN)			AVERAGE NET OUTPUT VALUE OF ALL PERSONNEL (10K YUAN/PERSON)			AVERAGE NUMBER OF STAFF AND WORKERS			1985 NET OUTPUT VALUE AND GROSS OUTPUT VALUE, PERCENT
		1985	1984	+,-(%)	1985	1984	+,-(%)	1985	1984	+,-(%)	
Total	67253.1	24840.2	21382.8	16.2	2489	2065	20.4	99782	103538	-3.6	37
Beijing	4684	2383.1	1811.8	31.5	7373	5085	45.0	3232	3563	-9.3	51
Tianjin	1234	414.4	472.2	-12.2	4524	5258	-14.0	966	898	7.6	34
Hebei	3440	1112	1028.6	8.1	2169	1606	35.1	5127	6404	-19.9	32
Shanxi	1683	638.7	740	-13.7	1613	2025	-20.3	3960	3655	8.3	38
Nei Monggol	1512	608	495.4	22.7	1900	1635	16.2	3200	3030	5.6	40
Liaoning	2026	571	754	-24.3	1255	1438	-12.7	4551	5242	-13.2	28
Jilin	1290.4	840.7	699	-24.3	3580	3078	16.3	4551	2271	3.4	65
Heilongjiang	5185.2	1733.4	1462	18.6	2856	2483	15.0	6069	5887	3.1	33
Shanghai	473	171	202	-15.3	3190	3285	-2.9	536	615	-12.8	36
Jiangsu	1990.5	671.4	566	18.6	2209	1974	11.9	3040	2867	6.0	34
Zhejiang	4274.7	1528.3	1093.2	39.8	2655	1708	55.4	5756	6401	-10.1	36
Anhui	4417.7	1620.8	1419	14.2	2316	2077	11.5	6997	6831	2.4	37
Fujian	1930.8	838.2	776	8.0	3015	2736	10.2	2780	2836	-2.0	43
Jiangxi	584	270.3	257	5.2	1635	1473	11.0	1653	1745	-5.3	46
Shandong	1892	680.7	365.5	86.2	2894	1814	59.5	2352	2015	16.7	36
Henan	3394	1063.8	841.4	26.4	2425	1993	21.7	4387	4221	3.9	31
Hubei	2135	623.4	626.8	-0.5	1896	1996	-5.0	3288	3140	4.7	29
Hunan	2158.6	692.3	654.5	5.8	1969	1594	23.5	3516	4106	-14.4	32
Guangdong	6167.6	2101.2	1997.9	5.2	2970	2364	25.6	7074	8453	-16.3	34
Guangxi	644.6	241.1	320.9	-24.9	1519	1985	-23.5	1587	1617	-1.9	37
Sichuan	2715.1	869	998.9	-13	1731	1688	2.5	5021	5918	-15.2	32
Chongqing	135.5	61	53	15.1	2068	2046	1.1	295	259	13.9	45
Guizhou	781.9	302.3	272.5	10.9	2542	2730	-6.9	1189	998	19.1	39
Yunnan	817	314.3	297.5	5.6	2369	2047	15.7	1327	1453	-8.7	39
Xizang	--	--	--	--	--	--	--	--	--	--	--
Shaanxi	3158.1	1372	958.7	43.1	2477	2123	16.7	5539	4515	22.7	43
Gansu	2443.2	819.6	555.9	47.4	1513	1022	48.0	5416	5439	-0.4	36
Qinghai	1184.7	322.4	394.1	-18.2	1417	1641	-13.7	2275	2402	-5.3	27
Ningxia	1645	695	367	89.4	2676	1725	55.1	2597	2128	22.0	42
Xinjiang	3255.5	1280.8	1108	15.6	3458	2394	44.4	3704	4629	-20.0	39

NATIONAL

BRIEFS

FUNDS FOR HARNESSING HUAIHE--Hefei, September 4 (XINHUA)--China will invest 1.24 billion yuan (about U.S. \$335 million) during the 1986-90 period to bring the Huaihe river under complete control. The investment is five times that of the previous five-year period, according to Cai Jingxun, director of the Committee For Harnessing the Huaihe River, attached to the Ministry of Water Resources and Electric Power. The 1,000-kilometer Huaihe, one of China's seven biggest rivers, has a basin covering 270,000 sq kilometers inhabited by 130 million people in central China's Henan Province and east China's Shandong, Anhui and Jiangsu provinces. Major projects to be undertaken during the 1986-90 period include consolidation of three big reservoirs and reconstruction of two reservoirs which were breached in 1975 on the upper reaches of the river. On the middle reaches, efforts will be made to complete the consolidation of two sections of dykes totalling 430 kilometers, Cai said. A new canal will be dug to divert the river into the Yellow Sea and a new dyke will be built along the canal which links the Huaihe to Hongze lake. Work will also be completed on the realignment of two other canals and five tributaries during the next five years, he said. [Text] [Beijing XINHUA in English 1000 GMT 4 Sep 86 OW] /8918

SEMI-DESERT TRANSFORMATION TECHNIQUE--Yinchuan, August 29 (XINHUA)--Chinese scientists have developed a technique combining tree and grass planting with animal farming to transform semi-deserts, XINHUA learned today. The technique, tried out over the past seven years in an experimental centre on the east slope of the Helan mountains in Ningxia Hui Autonomous Region, has been approved by a state appraisal board. Ren Jizhou, professor of Gansu Agricultural University and an expert on grassland, said the development is important for the battle against desertification, especially in parts of Ningxia, Inner Mongolia Autonomous Region, and Gansu and Shanxi provinces. Scientists pumped underground water to irrigate trees and shielded grasslands with shelterbelts. Animal husbandry and diversified economy were boosted later. Over the years, they have harvested from the 667-hectare experimental center 15 tons of feed, 2,000 tons of forage grass and 500 tons of vegetables and fruit, and raised 700 sheep. [Text] [Beijing XINHUA in English 1021 GMT 29 Aug 86 OW] /8918

SUMMER GRAIN, EDIBLE OIL OUTPUT--Beijing, 4 Sep (ZHONGGUO XINWEN SHE)--According to the latest statistics revealed by the Ministry of Agriculture, Animal Husbandry, and Fishery, China's summer grain and oils output for this year hit record a high level. According to the statistics, this year's gross grain output totalled 93 million tons, an increase of 4.25 million tons over last year. This is 1.7 millions tons more than the planned quota, or 1 million tons more than the great bumper harvest figure of 1934. This year's output of rapeseed increased by 202,500 tons over last year, or 17,000 tons more than the planned quota. [Text] [Hong Kong ZHONGGUO XINWEN SHE in Chinese 0623 GMT 4 Sep 86 HK] /8918

TRANSPROVINCIAL AFFAIRS

BRIEFS

YUNNAN, SICHUAN PORK AGREEMENT--Recently, the Yunnan Provincial Food Corporation and the Sichuan Provincial Food Corporation signed a long-term agreement to transfer frozen pork and live pigs. The agreement stipulates that from 1986 to 1988, Sichuan will transfer 25,000 tons of pork (including live pigs) to Yunnan each year. The transfer price of frozen pork will be set on the basis of the guiding price stipulated by the Food Bureau of the Finance Department or the Sichuan Provincial Food Corporation. The price of pigs will be based on the concrete conditions of time and place agreed upon by both parties. [Excerpt] [Kunming YUNNAN RIBAO in Chinese 4 Aug 86 p 1]

CSO: 4007/512

BEIJING

GROWING INTEGRATION OF SHANGHAI MUNICIPALITY, SUBURBS

Beijing LIAOWANG [OUTLOOK WEEKLY] in Chinese No 16, 21 Apr 86 pp 20-21

[Article by Sun Hongxiang [1327 3163 4382]: "The Urbanization Trend In The Shanghai Suburban District"]

[Text] The undertaking of first- and second-stage reforms by China's farm villages has enabled Shanghai Municipality's suburban district farm villages to leap the natural economic hurdles formed over the past 1,000 years or more, and start moving ahead toward the integration of city and countryside. Though still but a fresh sprout just breaking through the surface, it nevertheless reveals an inspiring vision of exuberant vitality.

The Embryonic Forms of Modernizing Agriculture

This new trend shows first that agriculture has started down the path to becoming specialized, commercialized, and modernized. According to relevant nationally regulated standard statistics, there are currently 4,444 specialized crop-cultivating or small-animal-raising households in Shanghai Municipality's suburban district farm villages. The scale of operation of these specialized households is extensive. For instance, 30.5 mu of grain land is contracted per grain specializing household, more than sixfold that of the average peasant household. Annually invested production costs over 5,600 yuan, more than nine times the cost for the average peasant household. The benefits reaped are greater with a comparatively large scale of operation. First of all, commodity rates are high. Productivity in their grain production per worker is ninefold that of the average peasant household's worker. The grain can provide for the annual consumption of 30 to 40 people. Second, economic benefits are high. Net income from labor can reach more than 1,700 yuan, 52 percent higher than income from average agricultural labor and higher than the mean income level of industrial labor. The formation of specialized households of all kinds has stimulated a specialized division of labor in farm villages. On this basis, many villages are gradually transforming into specialized villages of one kind or another. These villages are linking up the dispersed economies of individual families and households to form, through companies of one kind or another, a new-style cooperative joint entity.

Whether it be crop growing or the livestock industry, many production links are currently being completed by service companies of one kind or another in Shanghai Municipality's suburban district. Contracting households need only

pay a fixed fee, and need not do anything themselves. It is understood in general that the suburban district's 208 townships have set up agricultural and sideline industry companies. More than 2,800 out of 3,003 villages have established agricultural and sideline industry service brigades (groups). They provide peasants with systematic and comprehensive service in production, technology, information processing, transportation, and circulation, and have tremendously reduced the peasant workloads. Jiading County and Xuxing Township and peasants contract nearly 50 mu of grain land and last year each person expended only 60 days of labor to work it. Income reached 2,000 yuan (not including that portion where industry was used to supplement agriculture). These peasants used spare time to study scientific knowledge in agriculture, studied production techniques, read newspapers and books, and studied advanced measures for expanding production.

The Extension of the City

Agricultural reform is promoting growth in Shanghai suburban district's township and town enterprises. Like brightly colored mountain flowers, in a few short years factories of all kinds have opened up in every township and village. Currently, there already are in excess of 7,000 township and town enterprises in the more than 6,000 square km total area of the Shanghai suburban district, an average of one factory in less than 1 square km. Having undergone reform and adjustment year after year, these township and town enterprises have formed industrial systems with 10 or so kinds of industries, including those in metallurgy, chemistry, machinery, light industry, foodstuffs, textiles, shoes, and paper, and in more than 130 trades.

Last year's gross production value of township and town enterprises for the suburban district reached 8.8 billion yuan, nearly 80 percent of the gross production value of farm village cooperative economies. If countries with over 51 percent of production value in industry can be said to be industrialized, then the Shanghai suburban district's farm villages rate as "industrialized rural villages."

Small town industrial growth has provoked a massive restructuring of farm village labor. In the last several years a grand total of 1.1 million peasants in the Shanghai suburban district have switched from agriculture over to the industrial production domain, 40.6 percent of the total labor power of agricultural villages. The trend of agricultural labor to shift over to secondary and tertiary industries will continue along with the improvement in agricultural conditions following "the using of industry to supplement agriculture" and the setting up of an expanded and socialized service system.

Sixty-five percent of these widely scattered township and town enterprises work as feeders for large industries, and 15 percent work in export trade. Their production plans, raw materials, and commodity sales are for the most part included in the state plan. For example, 90 percent of the parts for the nationally reknown Fenhuanq and Yonqiu bicycles are produced by township and town enterprises. The state bicycle factories, producing only a small quantity of parts, are responsible for assembly work.

Along with economic, cultural, and transportation growth in farm villages, this urban-rural integration and interpenetration has also steadily developed from being just a bit, to being widespread, and is headed toward being in-depth. Currently, the municipal district's various systems have established nearly 500 factories in the suburban district, with a total work force in excess of 500,000 and a gross annual production value of approximately 12 billion yuan. In addition, many universities, colleges, and research institutes have also been established in the suburban district. It can be predicted that this regional and economic mixing together of city and countryside will grow increasingly intimate. Many people nowadays look upon the suburban counties of Shanghai as an extension of the city.

City-Countryside Interdependence Is Growing

The unraveling of the natural economy and growth of commodity production in Shanghai suburban county farm villages has made the interdependence of city and countryside even more intimate. With a shortage of 5 million mu in cultivable land for the Shanghai suburban district's peasants, current annual grain production is half the grain consumption of the 12 million municipal population. The cotton produced is about one-third of the municipality's raw material for the textile industry. The suburban district still supplies a surplus of food oil for city residents. It also provides between 60 and 70 percent of municipal pork, poultry, egg and other nonstaple food sales, all the city's vegetables and fresh milk, and most of the freshwater fish. According to rough statistics from last year for Shanghai, a sum of more than 5 billion yuan in commodities were exchanged between the city and countryside. Of this, the value of agricultural sideline products sold from the city's suburban farm villages to its municipal district was approximately 2 billion yuan, and more than 3 billion yuan in industrial products were sold from the municipal district to the suburban counties. Along with the reform of the agricultural byproduct state monopoly purchase and marketing system and the adjustment of farm village production structure, this trend to use the pattern of commodity exchange to link up urban-countryside relations will become daily more obvious.

Relevant responsible persons revealed some rousing figures at a recently convened working conference on Shanghai Municipality farm villages. In the last 5 years, the net Shanghai Municipal increase in production value was 26.2 billion yuan, including a suburban district increase of 8.7 billion yuan which was one-third of the net increase. There was a 2 billion yuan increase in Shanghai Municipality's commodity exports, half of which came from suburban counties. The suburban district has at the same time become an important source for increasing state revenues. In 1980, revenues for the suburban district's 10 counties were only 5 percent of the municipality's local revenues. By last year it had risen to 11 percent. This clearly shows that farm village economies have already linked up with the city's economy to form a single whole. Shanghai's economic expansion and prosperity is increasingly inseparable from its suburban district.

An "Outward-Facing" Type of Economy

In seeking growth, the Shanghai suburban district not only overran its more than 6,000 square km domain, it has also broken through the municipal district's 160 square km domain. Up to the present, Shanghai suburban district counties have initiated lateral connections with more than 120 counties in 20 provinces, municipalities, and self-governing regions, and created more than 200 items of economic and technical cooperation. At the same time, the Shanghai suburban district has utilized its plenty in labor and capital and its superior foundation in township and town enterprises to energetically pioneer in the utilization of foreign capital work and in the expansion of enterprises generating foreign exchange. The counties have directly attracted more than \$40 million in foreign and Hong Kong capital, and arranged for the establishment of 24 enterprises.

The Shrinking of The Urban-Countryside Gap

The gap in living standards between the city and countryside in Shanghai Municipality has now been greatly reduced. The standard of living for peasants in some nearby suburban locales has even surpassed that of municipal residents. Statistical department sample surveys show that the mean income of suburban district peasants reached 807 yuan last year. In recent years, the annual mean area of housing constructed is 1,900 square meters. The current mean living area per person is approximately 20 square meters, greatly exceeding the mean living area of municipal district residents.

From another angle, market town construction and development in Shanghai Municipality's suburban counties is showing people a new side to rural village industrialization and community urbanization. There are currently a total of 530 large and small market towns in the suburban district's 10 counties. There is a mean of one market town for approximately every 12 square km, a density which is first in the nation. When constructing market towns, many townships are keeping the integration of the city and countryside in mind, causing them to become miniature cities and progressive rural villages. Songjiang County's Xinbang Township undertook scientific planning according to the environment and divided market town construction into an administrative district, industrial district, green district, cultural center, and other different districts. Jiading County broke with the traditional "flat roof" and "match box" city and town style of house construction, and built distinctively styled buildings of the "Jade Pagoda," "Butterfly," "Carpenter Square," "Colored Ribbon," and other styles, causing city residents to stare with new respect. According to statistics, two out of every five market towns in the suburban district have set up movie theaters, hospitals, cultural centers and middle schools. The total population count for those currently working and living in market towns is 2.5 million, 45 percent of the total suburban district population.

These special features of economic growth in the farm villages of Shanghai Municipality show people a new trend in the economic development of the suburban districts of cities. It inspires people when making plans, thinking about problems, and managing affairs to dare to break through the urban-countryside barrier, which makes possible the effective promotion of greater prosperity in city and countryside economies and more rapid process in the integration of the city and countryside.

FUJIAN

BRIEFS

SOYBEAN HARVEST--The spring soybean harvest of more than 560,000 mu has basically concluded, estimated gross output may increase by about 4,500,000 kilograms. This year the area sown to the spring crop increased more than 50,000 mu. The area sown to soybeans in Putian City was more than 110,000 mu, per unit yield was 97.5 kilograms, an increase of 16 kilograms; the area sown to soybeans in Quanzhou City was more than 150,000 mu, the per unit yield was 96.5 kilograms, an increase of 6 kilograms. [Excerpts] [Fuzhou FUJIAN RIBAO in Chinese 10 Aug 86 p 1]

CSO: 4007/518

JPRS-CAG-86-033
6 October 1986

GUIZHOU

BRIEFS

RAPESEED PROCUREMENT--As of July 10, Guizhou Province had procured 28,200 tons of rapeseeds, an increase of 11,400 tons over the same period last year. [Excerpt] [Beijing ZHONGGUO SHANGYE BAO in Chinese 31 Jul 86 p 1]

CSO: 4007/521

HUBEI

HUBEI RIBAO EDITORIAL ON GRAIN HARVESTING

HK260716 Wuhan Hubei Provincial Service in Mandarin 1000 GMT 23 Jul 86

[Report on 23 July HUBEI RIBAO editorial: "Race Against the Season, Guarantee Quality, Overfulfill the Quotas, and Strive for a New Bumper Grain Harvest--First Comment on Fighting Hard in July, August, and September and Striving for a Total Victory in Agricultural Production"]

[Excerpts] The editorial says: The second month of summer has set in and early rice has begun to mature. The battle of both crash-transplanting [as heard] early rice and crash-transplanting late rice in rural areas has started. This is a decisive battle which has a bearing on whether or not the target of agricultural development for the whole year can be realized. The whole province and all trades professions must make concerted efforts to resolutely win this battle and create conditions for wresting a bumper agricultural harvest of the whole of this year.

At present, the rural situation of our province is good but there were some problems. This year, we had drought first and floods later. This caused some losses to agricultural production in some places. Due to drought, the areas of middle-season rice fields were less than before. Cotton seedlings ran short in some places and cotton production was very uneven. The supply of chemical fertilizers is now insufficient and it has made agricultural production relatively difficult. Between summer and autumn the weather is changeable and floods are likely to occur. Therefore, we must make sustained and redoubled efforts and press on without letup until we do a good job in crash-reaping and crash-transplanting. We must fight hard in July, August, and September and wrest a bumper harvest of autumn crops, including middle-season and later rice and cotton.

The editorial says: Crash-reaping and crash-transplanting are decisive battles. Our guiding ideology must be to race against the season, guarantee quality, and overfulfill the quotas. The best time for crash-reaping and crash-transplanting is fairly short. Do not let an opportunity slip; it may never come again. If we seize this season, we can gain the initiative in the late rice growth period and create favorable conditions for wresting a bumper harvest.

The editorial points out: To strive for a bumper harvest for the whole year, we must continue to fight hard in July, August, and September, completely strengthen autumn crop field management, and lay stress on combating disasters. The drought situation in the province has been eased but some places, especially the hilly and mountainous areas in the northern part, still have a very serious drought situation. These places must continuously do a good job in combating drought. The rivers, lakes, and reservoirs have entered the flood season. They must maintain sharp vigilance against the possible serious floods and make all good preparations. We must also pay attention to the threats of plant diseases and insect pests, to the attacks by wind and hailstones, and to the occurrence of rain and low temperatures after autumn. We must make good preparation many kinds of disasters. In field management, we must also pay attention to popularizing effective technological measures for increasing production and work hard to increase per-mu yield. At the same time, we must vigorously develop diversification, work hard to run township enterprises well, unclog circulation, do well in the procurement of agricultural and sideline products, and try in every possible way to increase peasants' incomes.

Today's HUBEI RIBAO editorial says: The principal leading cadres of the prefectures, counties, districts, and townships must use their main energy in agriculture, go to the forefront of crash-reaping and crash-transplanting, of combating disasters, and of field management to exercise direct specific leadership, and help peasants and grassroots cadres get rid of their worries and resolve their difficulties. All trades and professions must also use their main energy to do everything for and support agriculture and contribute toward wresting a bumper agricultural harvest.

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HUBEI

BRIEFS

COTTON SHORTAGE--The area sown to cotton in Hubei has declined for the past 2 years, as a result production is not meeting sales demand; in addition, the volume of exports has increased. At present, there is a shortage of more than 20,000 tons in stock. Hubei is a major cotton production area. Because the prices of other cash crops have increased recently, the area sown to cotton has continued to decline, in 1984 area declined by 8,100,000 mu, in 1985 area declined by 1,120,000 mu, and this year it declined by 380,000 mu. From January to June this year, supplies have not met demand by more than 30 percent compared to the same period last year. Production departments have requested 150,000 tons but there are only 127,7000 tons of cotton in storage. Based on estimates of the provincial Cotton Corporation, the sales volume in the province will increase 5 percent compared to last year, sales to other provinces will increase 8 percent, and exports will increase more than 100 percent. [Excerpts] [Chengde JINGJI XIAOXI in Chinese 8 Aug 86 p 1]

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JIANGSU

BRIEFS

DIVERSIFIED PRODUCTION--As of the end of June, the number of pigs on hand numbered 19,840,000, a 810,000 increase over the same period last year, or a 4 percent increase. In the first half of the year 60,210,000 pigs were slaughtered, an 11 percent increase over the same period last year. In the first half of the year the number of sheep on hand numbered 4,170,000, a 7 percent increase over the same period last year. Output of silkworm cocoons reached 34,000 tons, a more than 10 percent increase over the same period last year. In the first half of the year tea output exceeded 5,000 tons, an increase of 3.2 percent over the same period last year. As of the end of June, egg purchases were 64,000 tons, a 30 percent increase over the same period last year. [Excerpts] [Beijing ZHONGGUO CHENGXIANG XINXI BAO in Chinese 14 Aug 86 p 1]

CSO: 4007/512

JIANGXI

BRIEFS

RURAL SAVINGS, LOANS--In the first half of the year, the net increase of rural savings was 248 million yuan, a net increase of 40.9 percent over the first half of last year. Agricultural banks and credit cooperatives have allocated 550 million yuan for rural loans, an increase of 19.2 percent over the same period last year, 71.4 percent of the loans have been used to develop the planting and breeding industries. Throughout the province 3,189,000 rural households have received bank loans. Town and township enterprises have received 156 million yuan in loans to support 233 construction projects. Loans of 40 million yuan have been given to poor areas to support 400 new projects. The monthly interest rate on loans to peasants has dropped from .66 percent to .44 percent. In the first half of the year rural cash income and expenses increased 18.9 percent and 4.9 percent respectively. The amount of currency in circulation declined by 77.1 percent over the same period last year. In the first half of the year sales of rural commodities earned more than 230 million yuan. [Excerpt] [Nanchang JIANGXI RIBAO in Chinese 16 Jul 86 p 1]

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SHAANXI

BRIEFS

FERTILIZER SHORTAGE--In the first half of the year, the Central Government allocated 158,249 tons of chemical fertilizer to Shaanxi, a 55.15 percent reduction over the same period last year. Based on incomplete statistics, in the first half of the year, supplies of high-grade fertilizer declined by more than 400,000 tons over the same period last year. As of the end of May, there were 472,343 tons of chemical fertilizer in storage, a 30.43 percent reduction over the same period last year. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 12 Jul 86 p 2]

TEA SALES--Based on information provided by the provincial Fruit and Tea Corporation, from January to May 3,713 tons of tea were sold, a 14.4 percent increase over the same period last year. As of the end of May, the amount of tea in storage declined by 24.2 percent over the same period last year. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 9 Aug 86 p 2]

VEGETABLE OUTPUT--Based on statistics, the area sown to vegetables throughout the province is 1,820,000 mu, a more than 200 percent increase before price decontrol in 1984. The area of early crops has increased 20 percent compared to the same period, and the average per mu yield is more than 1,300 kilograms. Vegetable bases in the suburbs of Xi'an, Xianyang, Baowu, and Tongchuan have increased by more than 450,000 mu. In 1985 the volume of vegetables sent to markets increased more than 35 million kilograms compared to the time before price decontrol in 1984. The per capita intake of vegetables for urban residents increased from 0.28 kilograms to 0.4 kilograms. [Excerpt] [Xi'an SHAANXI RIBAO in Chinese 11 Aug 86 p 1]

CSO: 4007/512

SICHUAN

BRIEFS

INSPECTION GROUP RETURNS FROM SPAIN--Madrid, 31 Jul (XINHUA)--An agricultural and animal husbandry inspection group from Sichuan Province, led by Yang Rudai, secretary of the Sichuan Provincial CPC Committee, left Madrid for home today after winding up its 9-day visit to Spain. The group visited a hog-raising research center, an indigenous sheep and cheese production cooperative, and a livestock breeding and propagation center and held discussions with the agricultural department. In particular, it inspected the production of citrus fruits and the related scientific research work in Valencia, the main citrus-producing area of the country. Before the visit ended, China's Sichuan Provincial Academy of Agricultural Sciences and the Spanish National Agricultural Research Institute signed an agreement of intent to cooperate in the fields of agriculture and animal husbandry. Both sides expressed a desire to carry out technological exchange and conduct training in the production of citrus and other fruits and to cooperate in developing the techniques of transplantation of animal embryos and refrigeration of sperm. The Sichuan provincial agricultural and animal husbandry inspection group arrived in Madrid on 22 July. While touring and visiting various places, the group was accorded warm and friendly hospitality by various departments concerned. [Text] [Beijing XINHUA Domestic Service in Chinese 1244 GMT 31 Jul 86 OW] /6662

SILK OUTPUT, EXPORTS--As of the end of June, the output value of the silk industry in the province increased 3.5 percent over the same period last year, foreign exchange earned from exports increased 21.9 percent, and the output of silk products increased 13.2 percent. The 66 state-run silk reeling enterprises realized a 25.4 percent increase in profits after taxes compared to the same period last year. In the first half of the year exports of spun silk increased 360 percent over the same period last year, exports of silk and satin increased 85 percent, exports of silk finished products increased 34.7 percent, and foreign exchange earned was \$38 million U.S. [Excerpts] [Chengdu SICHUAN RIBAO in Chinese 10 Aug 86 p 2]

GRAIN PROCUREMENT--As of 5 August, Sichuan Province had procured 1,645,900 tons of summer grain, exceeding the state plan by 2.3 percent. The province procured 852,700 tons of rapeseeds, fulfilling 94.7 percent of the state plan. [Excerpt] [Chengdu SICHUAN RIBAO in Chinese 21 Aug 86 p 1]

ZHEJIANG

BRIEFS

FERTILIZER SALES--Based on statistics, in the first five months of the year, purchases of chemical fertilizer increased 27 percent over the same period last year, sales increased 19 percent, and reserves increased 16 percent. In May the sales volume was 570,000 tons, accounting for 40 percent of the sales volume in the first five months. [Excerpts]
[Beijing NONGMIN RIBAO in Chinese 9 Aug 86 p 2]

CSO: 4007/515

Agriculture

PRELIMINARY STUDIES ON HETEROSIS AND HERITABILITY FOR TEN TRAITS ABOUT GRAIN
FILLING IN WHEAT HYBRIDS

Beijing YICHUAN [HEREDITAS] in Chinese No 2, Mar 86 pp 19-22

[Article by Zhang Xiaolong [1728 2556 7893], Wu Guohai [0702 0948 3189] and You Wenping [3266 2429 1627], Sichuan Agricultural Academy at Ya'an]

[Abstract] The interrelationship among some traits in the process of the filling out of wheat grains during the origin, development and storage phases and their effect on seed weight and seed plumpness was explored during the 1981-1982 wheat growing season at the Sichuan Agricultural Academy farm at Yaan. This was a study of the effects of physiology on yields undertaken with a view to improving yields. Samples were taken at regular intervals starting from the first day of flowering until maturity in order to check leaf area, dry weight of vegetation, dry weight of grain, seed bulk and seed plumpness. These data were used to derive a theoretical grain weight for each of the times when samples were taken during the growing season. Other calculations produced the percentage of hybrid heteroses, the degree of dominance of traits and the heritability of traits in a broad sense.

Heteroses and dominance of various traits manifested during various stages of seed development for the first generation of hybrids are detailed in tables and figures. Heritability of traits, including seed weight, for separate wheat hybrids as exhibited in the second generation are also provided.

A final summary notes the proneness to environmental influences of various physiological traits and of the total physiological process.

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CSO: 4011/56

STUDY OF BACKGROUND VALUES OF HARMFUL ELEMENTS IN MAJOR AGRICULTURAL SOILS AND GRAIN CROPS IN 13 PROVINCES (MUNICIPALITIES)

Beijing NONGYE HUANJING BAOHU [AGRICULTURAL ENVIRONMENTAL PROTECTION] in Chinese No 3, Jun 86 pp 1-11

[Article by Agricultural Environment Background Values Combined Team]

[Abstract] Systematic research was conducted from 1979 through 1982 in 13 provinces and municipalities in China to determine the background values of various harmful elements in the agricultural environment, specifically copper, zinc, lead, cadmium, nickel, mercury, chromium, arsenic and fluorine. The purpose of this research was to establish a base line for the formulation of pollution indices, for evaluating environmental quality, for examining patterns governing the spread of governing pollutants, and for forecasting and reporting trends in the spread of pollution, as well as for making recommendations about proper use of pesticides and chemical fertilizers, for carrying out agricultural zoning, and for protecting and improving the agricultural environment.

Samples were taken in the provinces and municipalities surveyed of different kinds of soils at different depths and of different crops. Analytical methods were standardized for all laboratories engaged in the research and the same reagents were issued to all. Average values and standard deviations were determined for 10 different soil and grain specimens taken from different parts of the country for use as a basis for determining abnormal values. Extreme care was taken to insure valid values with as little contamination as possible from human activities, cross checks being made using various recognized methods for determining distribution.

Extensive tables convey survey methods and analytical procedures, and virtually all of the results obtained appear in tables with little additional textual explanation.

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Veterinary Medicine

STUDY OF SEVERAL PROBLEMS ON SWINE TOXOPLASMA-NT STRAIN

Beijing ZHONGGUO SHOUYI ZAZHI [CHINESE JOURNAL OF VETERINARY MEDICINE] in
Chinese No 2, Feb 86 pp 2-7

[Article by Zhang Shenxing [1728 1957 5887], Ji Yongsheng [1323 3057 3932], Gu
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[Abstract] The separation in 1978 of a toxoplasma strain from hogs afflicted
with "high fever disease" gave rise to a 5-year research project on the strain.
This strain, named NT strain as a result of having been found in Nantong County,
differed from highly virile strains of toxoplasma not only in the degree of its
virility, but also in the nature of symptoms, pathological changes and death
rates. Research on the NT strain complements work done in foreign countries on
the Beverley, S-273 and Ito strains.

Experiments were conducted on 10 generations of hogs and more than 30 genera-
tions of white mice, the infection of animals being done both through intra-
muscular and subcutaneous inoculation and through oral intake. Though animals
infected with NT strain recovered spontaneously without medication, the use of
certain sulfa drugs was found to decrease the number of cysts found in various
organs of experimental animals and to hasten recovery from toxoplasmosis. Anti-
biotics were entirely without effect in treatment of the disease.

Experiments showed no increase in virility of the strain resulting from the in-
fection of successive generations of hogs; infection of 33 successive genera-
tions of white mice with the strain failed to induce toxoplasmosis in them; both
the injection and oral intake of NT strain produced the formation of long endur-
ing cysts in numerous tissues of hogs and white mice alike; and NT strain pro-
duced relatively few trophozoites in either hogs or white mice. NT strain
appeared to be less virile than Beverley strain and similar in toxicity to
S-273 strain.

Tables interspersed throughout the text present findings at various stages of
the experiments.

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END