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實業部中央農業實驗所農業經濟科估計

DEPARTMENT OF AGRICULTURAL ECONOMICS
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MINISTRY OF INDUSTRIES
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實業部中央農業實驗所爲明瞭全國農業情形起見，特辦理全國農業情形調查估計。此種調查，包括各省主要農產之收穫豐歉，及各地農村經濟之興衰事實。現報告員人數逾六千餘人，熱心協助；分佈區域，互二十二省一千二百餘縣之廣，調查之結果，於每月一日發表報告一次，以供關心農業者之參考。

本期項目

CONTENTS

- | | |
|-----------------------------|-----------------------------------------------------------------------------|
| 1. 民國二十三年各省主要夏季作物產量
二次估計 | 1. PRODUCTION OF SUMMER CROPS 1934
SECOND ESTIMATE. |
| 2. 民國二十三年各省主要冬季作物產量
四次估計 | 2. PRODUCTION OF WINTER CROPS
1933-34, FOURTH ESTIMATE |
| 3. 近六十年中國耕地面積增減之趨勢 | 3. CHANGES IN THE AREA OF FARM
LAND IN CHINA DURING THE LAST 60
YEARS |
| 附錄： 全國六九一農事機關調查 | APPENDIX: A SURVEY OF 691 AGRICULTURAL INSTITUTIONS IN CHINA |

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歡迎轉載

1. 民國二十三年各省主要夏季作物產量二次估計

1. PRODUCTION OF SUMMER CROPS 1934. SECOND ESTIMATE

甲. 收量預測

A. Expected Production

(單位 1,000 市担, 1市担=100 市斤)

(Unit: 1,000 Shi piculs, 1 picul=100 Shi catties)

省 名	No. of Hsiens Reported	秈 梗 稻 Rice	糯 稻 Glutin-ous Rice	高 粱 Kaoliang	小 米 Millet	糜 子 Proso-millet	玉 米 Corn	大 豆 Soybeans	甘 薯 Sweet Potatoes	棉 花 (皮花) Lint Cotton	花 生 Peanuts	芝 蔴 Sesame	菸 葉 Tobacco	Province
察 哈 爾	7	—	—	3,827	4,330	1,074	124	784	—	—	—	—	—	Chahar
綏 遠	9	—	—	1,555	1,616	3,316	650	209	—	—	—	—	—	Suiyuan
甯 夏	5	130	22	299	504	856	—	36	—	—	—	—	—	Ninghsia
甘 肅	18	154	245	1,711	4,475	7,063	2,401	1,239	1,114	—	—	6	—	Kansu
陝 西	46	4,649	1,140	2,095	4,446	3,695	5,432	1,091	2,858	722	367	301	—	Shensi
山 西	82	65	40	9,300	15,359	4,087	6,314	2,075	1,684	713	218	704	380	Shansi
河 北	109	—	—	19,549	29,563	5,333	23,403	8,075	26,721	3,064	10,936	2,429	401	Hopei
山 東	86	—	—	35,196	41,167	4,433	13,448	30,829	48,484	1,655	13,252	2,462	942	Shantung
江 蘇	54	62,295	8,846	12,786	3,381	869	9,096	18,268	18,006	2,974	6,382	2,015	30	Kiangsu
安 徽	35	23,439	2,067	7,063	691	136	981	10,588	8,104	343	1,956	1,704	450	Anhwei
河 南	73	7,664	1,410	22,743	26,945	2,003	13,587	20,319	59,507	1,738	7,397	6,382	1,535	Honan
湖 北	20	43,947	4,010	4,322	3,795	152	6,019	5,470	7,567	1,776	2,222	1,075	207	Hupei
西 川	49	125,222	11,772	11,902	5,189	1,124	22,589	11,600	44,732	866	7,957	1,026	—	Szechuan
雲 南	18	42,779	4,521	1,856	320	213	5,553	3,873	6,762	—	459	44	—	Yunnan
貴 州	13	26,569	4,432	1,194	757	268	4,046	3,044	2,720	—	1,184	67	—	Kweichow
湖 南	33	61,939	4,015	1,410	413	44	526	2,088	19,327	365	1,608	106	729	Hunan
江 西	19	37,640	4,219	152	2,031	—	487	4,285	6,058	147	1,552	758	212	Kiangsi
浙 江	47	47,725	5,940	121	292	38	805	2,772	4,408	479	511	131	149	Chekiang
福 建	17	33,652	5,607	23	282	—	—	1,135	30,812	43	2,586	—	511	Fukien
廣 東	37	152,751	8,062	159	660	79	837	2,143	35,110	10	7,692	73	—	Kwangtung
總 計	777	670,620	66,348	137,263	146,216	34,783	116,298	129,923	323,974	14,895	66,279	19,283	5,546	Total, 2nd estimate
第一次估計	791	689,634	68,890	140,220	145,964	35,610	117,045	130,597	321,348	17,371	66,021	18,767	5,472	Total, 1st estimate

每市斤合 0.837779 舊制斤，或 0.50 公斤。

One Shi catty is equivalent to 0.837779 Peking standard catty, or 0.50 Kilogramme.

上述產量估計，係根據本年九月份七百七十七縣之農情報告員報告，及第一次估計之夏季作物種植面積，按縣推算而得。凡無報告之各縣，則按其鄰縣報告之平均數推算之。

The above estimates are based on the crop conditions as reported in September from 777 hsiens and on the first estimate for acreage published in September. The estimates are first made by hsiens; and for those hsiens where information is not available, the average of the reports from their neighboring hsiens is used.

本年夏季作物產量第二次估計，如與第一次估計相比較，除小米，甘薯，花生，芝蔴，菸葉等次要作物略有增加外，其他主要作物若稻，高粱，玉米，大豆，棉花等均屬減少，蓋因本年秋季旱魃為虐，至九月旱象尤見顯著所致，但因各省間情形懸殊，故產量亦有轉佳者。

The second estimate for the production of summer crops this year as compared with the first estimate shows a decrease in the expected production of the major crops like rice, kaoliang, corn, soybeans, and cotton but a slight increase in the minor crops such as millet, sweet potatoes, peanuts, sesame, and tobacco. Although the drouth continued in September and even became more severe in some places, in other places it was broken by rain and a better crop is expected in such localities.

1. 民國二十三年各省主要夏季作物產量二次估計

1. PRODUCTION OF SUMMER CROPS 1934, SECOND ESTIMATE (Continued)

乙. 收穫成數當十足年之百分比

B. Expected Yield Expressed as a Percentage of a Normal Year

省名	秈稻 Rice	糯稻 Glutinous Rice	高粱 Kaoliang	小米 Millet	糜子 Proso-millet	玉米 Corn	大豆 Soybeans	甘薯 Sweet Potatoes	棉花 Cotton	花生 Peanuts	芝麻 Sesame	菸草 Tobacco	Province
察哈爾	—	—	67	67	65	61	54	—	—	—	—	—	Chahar
綏遠	—	—	59	54	59	57	50	—	—	—	—	—	Suiyuan
寧夏	65	60	76	61	65	—	70	—	—	—	—	—	Ninghsia
甘肅	61	65	55	62	64	64	59	55	—	—	49	—	Kansu
陝西	69	62	56	57	57	58	49	63	48	56	45	—	Shensi
山西	69	69	69	69	64	67	62	71	63	63	64	68	Shansi
河北	—	—	67	63	61	61	53	67	65	65	59	62	Hopei
山東	—	—	65	71	68	65	68	76	66	74	69	70	Shantung
江蘇	56	56	59	72	70	52	43	60	53	60	64	65	Kiangsu
安徽	36	35	48	45	44	39	47	46	42	54	57	50	Anhwei
河南	57	64	60	64	48	60	57	67	59	62	61	51	Honan
湖北	42	41	58	61	53	54	47	49	47	58	53	47	Hupei
四川	69	64	69	65	59	70	69	64	62	64	62	—	Szechuan
雲南	73	75	74	69	70	64	74	75	—	75	69	—	Yunnan
貴州	67	66	60	67	64	66	70	59	—	63	59	—	Kweichow
湖南	49	45	49	49	41	41	47	46	39	42	50	53	Hunan
江西	38	39	27	49	—	43	52	44	37	40	35	58	Kiangsi
浙江	41	42	39	44	41	38	41	38	46	42	45	41	Chekiang
福建	69	72	68	63	—	—	75	69	80	77	—	78	Fukien
廣東	75	75	73	77	80	75	71	75	73	76	71	—	Kwangtung
加權平均	55	57	63	64	61	59	55	63	56	62	59	61	Weighted Average

按九月份之夏季作物生長情況報告，各省平均收穫，尚不及「十足年」之六成，約合平常年之七成左右。

按上表，我國本年夏季作物之收穫，以福建，廣東，廣西，雲南等省為最佳，約有十足年之七成以上；次為山東，河北，山西等省，約有十足年之七成左右；再次為江蘇，河南，陝西，甘肅，青海，寧夏，綏遠，察哈爾，及四川，貴州等省，約有十足年之六成左右；其他浙江，安徽，江西，湖北，湖南等省最低，僅有十足年之四五成而已。

本年夏季作物因旱歉收之成數及數量，均已先後發表於本刊第二年第九，十，十一各期，惟以報告旱災之時期與報告本年作物收穫之時期有先後之別，故兩者數字略有出入。又旱災調查作物歉收之數量，係與平常年之收穫數量相比較，非與十足年相比較，望讀者注意及之。

According to the crop conditions as reported in September, the expected yield of all the summer crops averages under 60% of the normal year, or about 70% of the average year.

From the above it is seen that the yield of the summer crops this year is best in Kwangtung, Kwangsi, Yunnan, and Fukien, where there is an expected yield of over 70% of the normal. In Shantung, Hopei, and Shansi, there is an expected yield of about 70% of the normal; while in Kiangsu, Honan, Shensi, Kansu, Tsinghai, Ninghsia, Suiyuan, Chahar, Szechuan, and Kweichow, it is about 60% of the normal. The expected yield is poorest in Chekiang, Anhwei, Kiangsi, Hupei, and Hunan, where it is only about 40-50% of the normal.

For the damage to the summer crops by drouth, reference may be made to the drouth studies appearing in Vol. 2, Nos. 9, 10, and 11. However, attention should be called to the fact that the dates of reporting differ and that the percentage of damage by drouth was compared with the average year's yield while the production estimate was calculated from the normal yield.

2. 民國二十三年各省主要冬季作物產量四次估計

2. PRODUCTION OF WINTER CROPS, 1933-34, FOURTH ESTIMATE

甲. 收穫數量

A. Amount Harvested

(單位：1,000市担, 1市担=100市斤)

(Unit: 1,000 Shi piculs; 1 Shi picul=100 Shi catties)

省名	報告縣數 No. of Hsien Reported	小麥 Wheat	大麥 Barley	豌豆 Peas	蠶豆 Broad Beans	油菜籽 Rape Seed	燕麥 Oats	Province
察哈爾	6	2,718	4,145	1,384	637	592	1,734	Chahar
綏遠	10	2,759	1,274	1,695	895	629	6,029	Suiyuan
甯夏	6	1,129	114	278	—	—	58	Ninghsia
甘肅	19	9,279	2,603	1,546	399	1,827	821	Kansu
陝西	47	24,114	5,527	3,963	302	1,921	84	Shensi
山西	79	25,541	3,922	1,891	423	713	2,577	Shansi
河北	106	40,440	5,010	1,277	259	490	410	Hopei
山東	76	67,821	8,629	2,191	168	465	262	Shantung
江蘇	51	56,316	37,185	6,978	7,804	3,329	2,959	Kiangsu
安徽	37	27,116	9,150	6,475	1,560	3,905	207	Anhwei
河南	66	88,252	18,050	11,288	388	1,891	329	Honan
湖北	24	15,213	19,943	4,060	6,189	5,552	1,368	Hupei
四川	60	30,056	18,656	16,457	12,452	16,108	2,213	Szechuan
雲南	19	5,753	2,858	3,058	10,129	1,723	—	Yunnan
貴州	14	5,862	4,727	1,203	1,391	1,909	—	Kweichow
湖南	29	6,286	3,934	1,464	3,673	6,185	—	Hunan
江西	21	8,136	3,683	1,237	1,816	9,603	—	Kiangsi
浙江	47	7,826	6,851	731	4,433	4,901	—	Chekiang
福建	14	4,728	3,165	438	1,229	835	—	Fukien
廣東	12	5,830	6,463	713	1,479	3,120	—	Kwangtung
總計	743	435,175	165,889	68,327	55,626	65,698	19,051	Total
第三次估計	730	448,640	171,936	70,923	56,000	69,239	17,254	Total, 3rd. Est.
第二次估計	699	470,745	178,099	71,834	56,213	68,265	16,219	Total, 2nd. Est.
第一次估計	709	485,617	173,276	73,760	57,565	71,737	16,644	Total, 1st. Est.

每市斤合 0.837779 舊制斤，或 0.50 公斤。

上述數字，係根據本年八月份之報告，及第二次估計之冬季作物種植面積，按額推算而得。其未設有報告員之各縣，則以其鄰縣所報告之平均數推算之。

本年度冬季作物之種植面積及產量估計，尚有最後修正一次，不久即可發表。

本年度之冬季作物產量，按照收穫後情形，除燕麥尚有增加外，其他作物，均較前三次估計數字，略形減少。小麥之產量，較第三次估計，減少約一千三百萬市担，其中即以河南一省而論，減少已在一千萬市担以上。

One Shi catty is equivalent to 0.837779 Peking Standard catty, or 0.50 Kilogramme.

The above estimates are based on the crop-conditions as reported in August and on the second estimate for acreage published in June and have been calculated by hsien. For those hsien where no information is available, the average of their neighboring hsien is used.

The final revision of the estimate of the acreage and production of winter crops this year is just under way and will be published in the following issues.

The fourth estimate for the production of winter crops shows a decrease in the harvested yield as compared with the expected yield in the former estimates except in the case of oats. There is a difference of 13 million Shi piculs between the third and fourth estimates of wheat production; of this amount Honan alone shows a decrease of 10 million Shi piculs.

2. 民國二十三年各省主要冬季作物產量四次估計

2. PRODUCTION OF WINTER CROPS,
1933-34, FOURTH ESTIMATE

(乙) 收穫成數當十足年之百分比

3. Harvested Yield Expressed as a Percentage
of the Normal Year

省名	小麥 Wheat	大麥 Barley	豌豆 Peas	蠶豆 Broad Beans	油菜籽 Rape seed	燕麥 Oats	Province
察哈爾	56	64	73	58	58	70	Chahar
綏遠	66	69	63	66	70	74	Suiyuan
寧夏	80	89	76	—	—	63	Ninghsia
甘肅	67	64	52	56	66	62	Kansu
陝西	71	72	65	59	61	62	Shensi
山西	69	69	63	65	65	66	Shansi
河北	55	58	57	63	59	63	Hopei
山東	66	68	66	66	68	64	Shantung
江蘇	75	74	66	66	66	73	Kiangsu
安徽	74	76	71	68	68	61	Anhui
河南	59	62	63	60	60	74	Honan
湖北	61	67	59	63	62	90	Hupei
四川	80	78	73	74	73	69	Szechuan
雲南	71	73	68	69	66	—	Yunnan
貴州	73	70	64	66	70	—	Kweichow
湖南	70	68	69	74	67	—	Hunan
江西	67	60	72	71	75	—	Kiangsi
浙江	68	70	62	62	69	—	Chekiang
福建	76	72	81	81	80	—	Fukien
廣東	70	69	85	79	82	—	Kwangtung
加權平均	68	68	66	67	67	68	Wt. Average

上表收穫成數，當十足年之百分比，係按各縣所報告之成數，平均計算而得。

本年度各種主要冬季作物之收穫成數，各省平均，約當十足年產之七成弱。然若按省分別觀察之，則華中與南各省均較華北為佳，因本年華北一帶，早春氣候甚為寒冷，且多雨水，導致以夏季乾旱，造成收穫時值受風虫等災，故作物之收穫不及往年適量。

小麥之收穫，在華北主要產麥省區，均屬歉收，如河北省僅得五成五，山東省僅得六成六，河南省僅得五成九；其餘若大麥，豌豆，蠶豆，油菜籽等在該三省區域內，收穫亦與小麥相似。

Each percentage above is an average of the percentages reported for the hsien.

From the above it is seen that the harvested yield of the winter crops averages not quite 70% of the normal year. The provinces situated in central China and south China all show a better crop than those in north China. This is due both to the fact that the cold and wet spring was followed this year by a drought and to the fact that the crops were damaged by the wind and the insects during the harvesting stage.

The wheat yield is rather poor in the three main wheat-producing provinces of north China, Hopei, Shantung, and Honan, where the yield is only 55%, 66%, and 59%, respectively, of the normal. In the same provinces, the yield of the other crops like barley, peas, broad beans, and rape seed, is poor, too.

3. 近六十年中國耕地面積增減之趨勢

此項調查，係本年二月間全國各省農情調查員所報告。由金陵大學農地經濟系陳啓明教授主持規劃，並協助分析，特此附誌。

土地利用與土地分配，為現代研究農業問題之中心，故各先進國家對於土地數字均有詳確之統計。反觀我國，土地數字無確切統計，土地分配狀況，自無由明瞭。近來社會一般人士，談土地問題者，莫不實人入彀，有云中國耕地逐年增加者，亦有云中國耕地更形減少者，雖各有相乘理由，但均無詳細之調查估計，仍不能作為定論。茲將全國各省農情調查員所寄來之一千五百三十二份報告中，分析列表如下：

第一表

3. CHANGES IN THE AREA OF FARM LAND IN CHINA DURING THE LAST SIXTY YEARS

The following information was obtained in February, 1934, by the crop reporters of the National Agricultural Research Bureau. The Bureau is indebted to Professor Chi-ming Chiao of the Department of Agricultural Economics, the University of Nanking, for his valuable services in planning the survey and in analyzing the data.

Since land utilization and land distribution are fundamental problems in the field of agricultural research today, land statistics are needed for a study of their solution. In China such statistics are not so complete and accurate as they are in other countries; hence, in discussing land problems different conclusions have often been reached. Some people have maintained that farm land in China is increasing, while others have argued that it is diminishing. Without accurate, nation-wide figures it is impossible to settle this question. The present study is the result of an analysis of 1,532 reports from twenty-two provinces of China.

Table 1.

省名	報告份數 No. of Reports	耕地指數——固定基年 (同治十二年=100) Farm Land Index with Fixed Base (1873=100)				耕地指數——移動基年 (as indicated below)			Province
		同治十二年 (1873)	光緒十九年 (1893)	民國二十年 (1913)	民國二十二年 (1933)	光緒十九年 (1893) (1873=100)	民國二十年 (1913) (1893=100)	民國二十二年 (1933) (1913=100)	
察哈爾	8	100	104	112	104	104	108	93	Chahar
綏遠	10	100	95	93	88	95	97	95	Suiyuan
寧夏	3	100	100	102	99	100	102	97	Ningsia
青島	13	100	169	175	203	169	104	116	Tsinghai
甘肅	27	100	116	117	118	116	100	101	Kansu
陝西	68	100	98	95	91	98	96	96	Shensi
山西	138	100	103	110	110	103	106	101	Shansi
河北	410	100	98	100	98	98	103	98	Hopei
山東	182	100	103	105	99	103	102	94	Shantung
江蘇	117	100	101	102	110	101	101	108	Kiangsu
安徽	59	100	106	107	107	106	101	100	Anhui
河南	138	100	99	117	115	99	118	99	Honan
湖北	23	100	104	109	128	104	105	118	Hupeh
四川	65	100	102	104	110	102	102	106	Szechuan
雲南	28	100	111	133	131	111	120	99	Yunnan
貴州	22	100	115	121	130	115	105	108	Kweichow
湖南	41	100	88	89	88	88	101	98	Hunan
江西	29	100	99	93	91	99	94	97	Kiangsi
浙江	38	100	102	73	78	102	71	107	Chekiang
福建	25	100	96	92	81	96	96	87	Fukien
廣東	38	100	101	101	102	101	100	101	Kwangtung
廣西	59	100	105	117	123	105	111	105	Kwangsi
總計*	1532	100	102	102	102	101	100	100	Total*

* 總計內之耕地指數，係由各省之二十二省耕地指數計算而來。

* The indices for Total are calculated directly from the total area of farm land in the 22 provinces.

第二表

Table 2.

省名	報告份數 No. of Reports	普通農家所 耕種之畝數 Size of ordinary farm (mow)	未墾佔土地總面積之百分率 % of land area † uncultivated	可墾而未墾佔土地總面積之百分率 % of uncultivated land area arable	可墾而墾佔土地總面積之百分率 % of land area uncultivated but arable	Province
察哈爾	8	45.0	75.0	57.0	42.75	Chahar
綏遠	10	128.0	34.5	57.1	19.70	Suiyuan
甯夏	3	39.5	53.3	21.7	11.57	Ninghsia
青海	13	39.0	18.0	43.0	7.74	Tsinghai
甘肅	27	38.5	17.8	15.8	2.81	Kansu
陝西	68	38.4	19.7	23.0	4.53	Shensi
山西	138	41.5	13.8	27.7	3.82	Shansi
河北	410	31.6	12.0	26.2	3.14	Hopeh
山東	182	29.3	16.9	36.9	6.24	Shantung
江蘇	167	21.1	12.2	20.0	2.44	Kiangsu
安徽	59	27.6	12.0	34.8	4.18	Anhwei
河南	138	35.5	11.5	26.3	3.02	Honan
湖北	23	17.8	17.8	39.2	6.98	Hupei
四川	65	20.8	16.7	22.9	3.82	Szechuan
雲南	28	13.3	20.0	50.0	10.00	Yunnan
貴州	22	14.0	21.0	33.0	6.93	Kweichow
湖南	41	18.9	22.5	50.9	11.45	Hunan
江西	29	21.1	17.9	28.5	5.10	Kiangsi
浙江	38	15.2	9.8	19.5	1.91	Chekiang
福建	25	15.6	20.8	46.7	9.71	Fukien
廣東	38	13.7	16.2	48.5	7.86	Kwangtung
廣西	50	12.9	17.2	17.9	3.08	Kwangsi
加權平均	1532*	30.2	19.1	33.3	6.36	Weighted Average

† 土地總面積係指調查表內所列各報告區域中之荒熟田地總面積。

* 報告之總數。

上列第一表，為我國最近六十年來農村耕地增減之趨勢。若以同治十二年為基年，則在固定基年，增減項下，全國總指數在民國二十二年為一〇一，意即在已往六十年中，全國耕地面積共增百分之二。若按移動基年指數計算之，則可知已往時期與其他時期耕地增減之趨勢。例如在移動基年指數項下，光緒十九年之全國總指數為一〇一，意即同治十二年至光緒十九年，其間二十年中，我國農村耕地面積，共增加百分之二。又如民國二年及二十二年之總指數各為一〇〇，乃表示由光緒十九年至民國二十二年，其間三十二年，我國農村耕地面積，並無增減。（參看第一表）
(續下頁)

† Land area designates the total amount of land whether cultivated or uncultivated in the districts reported.

* Total number of reports.

The indices given in Table 1 throw some light upon the trend of farm land changes in China during the last sixty years. Under the Farm Land Index with Fixed Base (year 1873) the index for China in 1933 is 101; in other words, during the past sixty years China has increased the area of her farm land 1%. Again, under the Farm Land Index with Moving Base the trend is more evident when comparing one period with another. As an example, the index for China in 1893 is 101; that is, during the twenty-year period, 1873-1893, China's farm land increased 1%. In 1913 and 1933 the indices are 100; that is, during the twenty-year periods, 1893-1913, 1913-1933, no changes occurred in the area of farm land, the amount remaining the same.

就全國總指數而論，在最近二十年來，我國農村耕地雖未增加，但亦未減少。若將各省分別論之，則增減各有不同。考其增加主因，大多數為荒地開墾。例如青海，四川，湖北，江蘇，浙江，廣西，貴州諸省，近年來因人口增加（參看農情報告第二年第五期），一部份荒地均從事墾殖。又如綏遠，察哈爾，寧夏，陝西，河北，山東，江西，湖南，福建諸省，其農村耕地皆呈減少現象。考其原因，綏遠以盜匪遍地，水旱為災，田畝多見荒蕪。陝，甘兩省常苦乾旱，尤以民國十八年至二十年之大旱，農民死亡遷移者，為數至夥。又河南，山東二省，水旱，兵匪，災患迭起，益以苛捐雜稅，民不聊生，羣相拋棄田畝，另尋生計；黃河水災，屢次為患，往往水退沙積，田地即成荒蕪。至於江西，福建二省，歷年飽受兵燹匪共水旱等災，耕地面積自形減少矣（參看第一表）。

一般人士，以為我國地大物博，只須從事開墾，便可增加耕地，解決人口過剩問題，孰不知今日我國人口，為分配問題，而非為數量問題。移民開墾，固屬要策，而返觀國內人口尚是逐年增加，即以最近六十年而論，已增加百分之三一，至於耕地面積在六十年中只增加百分之一，兩相比較，相差頗巨。其主要原因，並非農人不肯開墾荒地，實則是項鑿地，多不適於耕種，觀上第二表便可瞭然。近年以來，多數人士竭力提倡移墾西北，夫西北固多荒地，但其中可開墾者，恐亦屬寥寥無幾。試觀上表（第二表），以全國論，荒地僅佔土地面積（報告員所在地）之百分之一九。一，若再問其可墾之荒地，僅不過百分之六。四而已。即以此百分之六。四作為可利用之地，則其利用之是否有利，仍屬疑問，至於土地所在地之自然環境等固不能不加以考慮者也。加以西北氣候寒冷，水源缺乏，即有大好曠野，利用之亦頗不易易。再觀其餘各省，雖有未墾土地，大都零星分散，為用亦不廣也。

總之，全國土地一方以開墾零星荒地而增加，一方又因水旱兵匪各端而荒蕪，於是實際上所增加者，僅得百分之一。然此百分之一耕地，亦非近年以來所增加，吾人若詳察第一表中之移動指數，即可知其土地增加乃為四十年以前事也。由此觀之。可知今後荒地之可開墾者，似屬有限，我國人口過剩問題固非僅僅開墾荒地一場所可解決者也。

A general review of the farm land indices for China during the last twenty years shows that the area of farm land in China is neither increasing nor diminishing. In considering the changes by provinces, however, some show an increasing and others a decreasing area. For instance, in Tsinghai, Szechuan, Hupeh, Kiangsu, Chekiang, Kwangsi, and Kweichow Provinces, the population has been increasing during recent years (see *Crop Reports*, Vol.2, No. 5), and most of the arable land has been brought into cultivation, thereby increasing the area of farm land. In Suiyuan, Chahar, Ninghsia, Shensi, Hopei, Shantung, Kiangsi, Hunan, and Fukien Provinces, there has been a decrease in the amount of farm land. In Suiyuan, it has been due mainly to bandits, floods, and drought. In Shensi and Kansu, there has been much suffering from drought, especially in 1929-1931 when many of the people emigrated or died. In Shantung and Honan, the people have suffered from floods and drought, war and bandits, and excessive taxation; and, for these reasons, they have been forced to abandon farming for other pursuits. Furthermore, the over-flowing of the Yellow River has deposited sand and gravel on the farm land, making it unfit for cultivation. As for Kiangsi and Fukien, their decrease in farm land area is due to the recent trouble with the communists. (Table 1)

The prevailing belief that China has large areas of land that can be cultivated, thereby solving the population problem, is too optimistic. It is recognized, however, that the problem must be approached from the standpoint of distribution. Colonization and the cultivation of arable land are considered as important solutions to the problem, but such can be only temporary measures as population growth is continuous. During the last sixty years, for instance, the population has increased 31% whereas the area of farm land has increased only 1%. It is evident that a vast area in China cannot be profitably tilled (see Table 2), and its utilization in other ways is somewhat doubtful. Colonization in the Northwest has been frequently urged, but the question is whether or not the uncultivated areas could be profitably tilled. According to Table 2, 19.1% of the land area covered by the survey is not already under cultivation, and only 33.3% of this amount is fit for cultivation; in other words only 6.4% of the land area covered by the survey is arable but, at present, uncultivated. Even in attempting to make use of this arable land, one must consider all the aspects of the farming industry and decide whether or not such land can be farmed with profit.

During the last sixty years, two forces have been at work. On the one hand, new land has been brought into cultivation and, on the other, previously-farmed land has been abandoned because of floods, drought, war, and bandits. As a result, the net increase in the amount of land brought into cultivation is only 1%; and this increase occurred during the first twenty-year period, or 40 years ago (see Table 1). In conclusion, it might be stated that uncultivated arable land in China is limited and, consequently, its utilization is not the chief means of solving the problem of China's dense population.

附 錄
APPENDIX

全國六九一農事機關調查

A SURVEY OF 691 AGRICULTURAL INSTITUTIONS IN CHINA

本所為明瞭全國農事機關之分佈狀況及事業性質起見，爰於民國二十二年十一月，製訂全國農事機關調查表，內列機關名稱；詳細地址；成立年月；機關宗旨；機關沿革；主管機關名稱；主持人性名；本年度經常費總數及其支配；本年度臨時費；本年度之主要工作；房屋圖書，儀器設備費；技術人員及事務人員之總數；學生或會員總數；附屬機關之名與地址以及歷年出版品之名稱等項，分寄全國各省公私立農事機關團體，並請各機關轉介紹，俾得普遍之調查。共計寄發調查表九百八十三份，截至本年九月止，先後填註寄還者，有六百九十一份，其尙未寄還者，正擬繼續從事調查，此外因所在不詳，未克着手調查者，仍恐難免。茲先就調查所得分列數表，以視其分佈之情形，事業之性質，及經費人員之狀況焉。

As no study had been made of the agricultural institutions in China, the National Agricultural Research Bureau undertook such a survey in November, 1933. A questionnaire was sent to all the agricultural institutions whose address was known, and extra copies were inclosed with the request that they be forwarded to those institutions whose address might not be known by this Bureau. The questionnaires asked for such information as the date of inauguration and other historical details, the scope of work, the annual budget, the source of revenue, the equipment, publications, and staff. Of the 983 blanks sent, 691 had been filled in and returned by September 30, 1934. The study is being continued in order to have a complete report of all the agricultural institutions in China, and follow-up blanks are being prepared to send to those institutions that did not answer the original request. A glimpse into the 691 agricultural institutions that have reported is afforded by the following tables.

第一 表

Table 1

省市別	農事機關設立性質別						Province and Municipality
	國 立	省 立	縣 立	私 立	團 體	合 計	
	Nation	Province	Hsien	Private Individuals	Associations	Total	
南 京 市	16	3	2	3	5	29	Nanking Mun.
江 蘇	8	86	57	27	1	179	Kiangsu
廣 東	10	26	53	4	3	96	Kwangtung
山 東	7	28	12	6	4	57	Shantung
浙 江	4	34	9	6	—	53	Chekiang
河 北	5	18	6	11	5	45	Hopei
河 南	1	23	13	3	—	40	Honan
安 徽	—	18	4	—	4	26	Anhwei
山 西	—	20	3	1	—	24	Shansi
廣 西	—	22	—	—	—	22	Kwangsi
江 西	1	20	—	—	—	21	Kiangsi
湖 南	—	8	4	5	3	20	Hunan
福 建	—	5	6	5	3	19	Fukien
湖 北	—	10	1	—	1	12	Hupei
陝 西	—	6	1	2	2	11	Shensi
四 川	—	5	2	2	1	10	Szechuan
綏 遠	—	6	—	1	1	8	Suiyuan
貴 州	—	5	1	—	—	6	Kweichow
雲 南	—	5	—	—	—	5	Yunnan
察 哈 爾	—	4	—	—	—	4	Chahar
甘 肅	—	3	—	—	—	3	Kansu
青 海	—	1	—	—	—	1	Tsinghai
總 計	52	356	174	76	33	691	Total
佔總數之百分率	7.5	51.5	25.2	11.0	4.8	100	%

(說明書下頁)

(See next page for explanation.)

觀上表知農事機關以江蘇省為最多，廣東山東浙江等省次之。南京市為首都所在地，故國立之機關，佔多數，如中央農業實驗所，中央大學農學院，全國經濟委員會農墾處，行政院農村復興委員會，中央模範林區，中央棉產改進所，中央農業推廣委員會等；連附屬機關在內，共計有十六所之多。至省立縣立及私立之農事機關，亦以江蘇省為最多。廣東山東浙江等省，農事機關之數，雖較其他各省為多；然較之江蘇，則遠遜矣。邊遠各省，如青海，甘肅，察哈爾，雲南諸省，則農事機關之數甚少。各省之農事機關中，就設立之性質而論，以省立最多，占百分之五十一有奇；縣立次之，占百分之二十五有奇；國立最少，占百分之七有奇。

From the above table it is seen that Kiangsu leads in the number of agricultural institutions being followed by Kwangtung, Shantung, Chekiang, and so forth. The capital is at Nanking, and probably for this reason sixteen of the twenty-nine institutions there are supported by National Government. Among these are the National Agricultural Research Bureau of the Ministry of Industries, the Bureau of Agriculture of the National Economic Council, the College of Agriculture of the National Central University, the Farm Rehabilitation Committee of the Executive Yuan, the Central Cotton Improvement Institute of the Cotton Industry Commission of the National Economic Council, and others. As to the number of provincial, hsien, and private institutions, Kiangsu again leads although Kwangtung, Shantung, and Chekiang also have a large representation. The border provinces, however, such as Tsinghai, Kansu, Chahar, and Yunnan, have only a small number of agricultural institutions; and the few that they have are supported by provincial funds. Among the 691 institutions studied, 51.5% receive their main support from the province, 25.2% from the hsien, and only 7.5% from the National Government.

第二表

Table 2.

省市別	農事機關種類							合計	Province and Municipality
	農業教育 Education	農民教育 Rural Education	農業研究 Research	農業行政 Administration	農業金融 Rural Finance	農業團體 Associations	其他 Others		
南京市	3	2	10	8	1	5	—	29	Nanking Mun.
江蘇	16	37	46	60	15	1	4	179	Kiangsu
廣東	11	—	39	42	1	3	—	96	Kwangtung
山東	8	3	28	10	1	2	5	57	Shantung
浙江	6	—	17	19	9	—	2	53	Chekiang
河北	5	1	28	11	—	—	—	45	Hopei
河南	12	—	18	10	—	—	—	40	Honan
安徽	3	—	12	8	2	1	—	26	Anhwei
山西	6	—	11	7	—	—	—	24	Shansi
廣西	1	—	14	7	—	—	—	22	Kwangsi
江西	5	—	10	4	1	—	1	21	Kiangsi
湖南	5	—	12	2	—	1	—	20	Hunan
湖北	7	—	9	3	—	—	—	19	Fukien
陝西	1	—	2	6	3	—	—	12	Hupei
四川	2	—	7	2	—	—	—	11	Shensi
川	4	—	4	1	1	—	—	10	Szechuan
綏遠	—	—	6	1	—	—	1	8	Suiyuan
貴州	—	—	2	3	—	—	1	6	Kweichow
雲南	1	—	—	3	—	1	—	5	Yunnan
察哈爾	1	—	2	1	—	—	—	4	Chahar
甘肅	1	—	1	1	—	—	—	3	Kansu
青海	—	—	—	1	—	—	—	1	Tsinghai
總計	95	43	275	210	34	14	14	691	Total
佔總數之百分比	14.2	6.2	40.3	30.4	4.9	2.0	2.0	100	%

(說明書下頁)

(See next page for explanation)

註： 農業教育機關包括農學院，農科大學，高級或初級之農科職業學校，鄉村師範學校，農科補習學校以及各種農事指導人員養成所等。

農民教育機關包括農民教育館及農民夜校等。

農業研究機關包括農業實驗所，農業改良場，農事試驗場，土壤肥料或昆蟲研究所，農具製造所，血清製造所，蠶種製造所以及公立或私立之農業研究會等。

農業行政機關包括全國經濟委員會，林務局，林區區署，農業建設局，農村服務處，農業推廣所，農產指導所，蠶絲取締所以及農業促進委員會等。

農業金融機關包括農民銀行，農村金融救濟局及農民借貸所等。

農業團體包括合作社聯合會，及團體組織之農會，農業改進會，養蠶養蜂協會等。

其他一項係包括私人及團體經營之農林場等。

Note: The following is an explanation of the terms used:

Under *Education* are included agricultural colleges, agricultural short course schools, agricultural technical schools, training schools for rural workers, and so forth.

Under *Rural Education* are included day or night schools for teaching the farmers.

Research refers to such institutions as agricultural research bureaus, agricultural experiment stations, soils and entomological research laboratories, agricultural institutions, and the like, whether under private or government control.

Administration refers to such organizations as the National Economic Council, reforestation stations and bureaus, extension committees, and other such groups that exist for the promotion of scientific agriculture.

Under *Rural Finance* are included rural loan banks, rural credit organizations, and the like.

Associations include federations of cooperative societies, chicken-raising societies, bee-keeping societies, and so forth.

Others include those privately owned stations or nurseries which operate on a commercial basis.

第三表

Table 3.

設立性質	農事機關種類							合計	Main Source of Support
	農業教育 Education	農民教育 Rural Education	農業研究 Research	農業行政 Admini- stration	農業金融 Rural Finance	農業團體 Associ- ations	其他 Others		
國立	5	—	32	14	1	—	—	52	Nation
省立	55	7	131	133	24	—	6	356	Province
廳立	18	35	61	50	8	—	2	174	Hsien
私立	19	—	47	3	1	—	6	76	Private Individuals
團體	1	1	7	10	—	14	—	33	Associations
總計	98	43	278	210	34	14	14	691	Total

第四表

Table 4.

設立性質	經費 Budgeted expenses						Main Source of Support
	實數 (元) Amount (\$)			百分數 %			
	經常費 Annual	臨時費 Contingent	總計 Total	經常費 Annual	臨時費 Contingent	總計 Total	
國立	8,638,641	691,814	9,330,455	42.3	3.4	45.7	Nation
省立	6,309,804	1,386,851	7,696,655	30.9	6.8	37.7	Province
縣立	839,806	92,148	931,954	4.1	.4	4.5	Hsien
私立	1,492,978	237,045	1,730,023	7.3	1.2	8.5	Private Individuals
團體	479,567	268,697	748,264	2.3	1.3	3.6	Associations
總計	17,760,796	2,676,555	20,437,351	86.9	13.1	100	Total

第五表

Table 5.

設立性質	現有職員數 Staff members						學生數 Students	會員數 Members of Associations	Main Source of Support
	實數 Number			百分數 %					
	技術人員 Technical	事務人員 Clerical	總計 Total	技術人員 Technical	事務人員 Clerical	總計 Total			
國立	811	339	1,150	10.5	4.4	14.9	1,065	122	Nation
省立	2,719	1,652	4,371	35.4	21.5	56.9	8,083	11,956	Province
縣立	528	366	894	6.9	4.8	11.7	6,779	6,513	Hsien
私立	575	409	984	7.5	5.3	12.8	4,240	88	Private Individuals
團體	151	128	279	2.0	1.7	3.7	401	2,869	Associations
總計	4,784	2,894	7,678	62.3	37.7	100	21,288	21,548	Total

上表所列經費中尚有四十八機關未曾確實填註，故不能全部列入，其未經填註之機關計有全國經濟委員會，行政院農村復興委員會，實業部青島商品檢驗局濟南檢驗處，國立浙江大學農學院，山東大學農學院，河北推廣站模範灌漑場，中國農工銀行杭州分行等，其餘均為較小之機關。

觀上表知全國六四三機關合計每年經常費臨時費為二千萬元以上，其中以國立機關之經費最多，省立次之。至職員人數中技術人員佔四千七百八十餘人，而事務人員佔技術人員之半數以上。學生人數及會員人數則均為二萬一千餘人。

Since forty-eight institutions did not report their budget, the 20 million dollars listed in Table 4 does not represent the full amount expended for agricultural work. In studying Table 4 it is important to keep this fact in mind, especially as among the forty-eight institutions not reporting their budget there are several known to have large expenditures such as the National Economic Council. For the 643 institutions included, the budgeted expenses total over twenty million dollars, 45.7% of which is expended by National institutions with Provincial ones expending the next largest amount, or 37.7%.

Regarding the staff members, technical workers number 4,784 and clerical workers, 2,894. There are 21,288 students enrolled in the educational institutions, and there are 21,548 members of the various associations.