

AGRICULTURAL PRODUCTION IN CHINA*

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Data dealing with land utilization and crop distribution in China have never been numerous nor easily available to the geographer who has been interested in agricultural problems of the Far East, however, it would appear that satisfactory statistics may be obtained from the "Statistical Tables of Agriculture and Commerce," Pekin 1922, as that publication has served as the basis for the following preliminary analysis.

The total area of China¹ is 2,440 millions of acres, of which 1,146 millions of acres are too arid for crop production, 64 millions too cold, 488 millions of acres too mountainous, and 36 millions so lacking in fertility that crop production is impossible. There remains, therefore, 706 millions of acres which may be classified as arable land, however, only 176 millions of acres are actually cultivated. To recapitulate, it is evident from this analysis that approximately one-fourth ($\frac{1}{4}$) of the total area of China is arable, but the Chinese are cultivating only $\frac{1}{4}$ of their cultivable land.

If the acreage of cultivated land be divided by the total population ($176,000,000 \div 475,000,000$) the area of cultivated land per person is roughly 0.40 acres. If China proper be considered, the average is somewhat lower, being 0.38, whereas in the United States the average area of cultivated land per capita was 3.4 acres.

* Worked in cooperation with O. E. Baker and E. G. Foscoe.

¹ "Agricultural Production in China" (Economic Geography, Vol. III, No. 3). (A special set of maps to serve with these data given here.)

TABLE I.
PRELIMINARY ESTIMATE OF AREA OF CULTIVATED LAND IN 1918—NUMBER OF FARMS, 1918, AND TOTAL POPULATION, 1923
(P. O. ESTIMATE.)

(Based mostly on Statistical Table of Agriculture and Commerce Department of Agriculture and Commerce, Peking, 1922.)

Province or District	Cultivated Land (acres)	Number of farm (families)	Cultivated Land per farm (acres)	Population	Population per farm	Cultivated Land per capita
Capital District	2,446,000	635,000	3.85	34,187,000	7.2	0.47
Chihli	13,625,000	3,985,000	4.20	30,803,000	5.8	0.52
Shantung	15,983,000	5,350,000	2.98	30,832,000	5.8	0.54
Honan	16,700,000	5,325,000	3.14	11,081,000	7.3	0.60
Shansi	7,353,000	1,530,000	4.82	9,436,000	7.3	0.56
Shensi	5,333,000	1,308,000	3.62	5,928,000	7.0	0.51
Kansu	3,000,000	854,000	3.48	33,786,000	7.4	0.41
Kiangsu	13,833,000	4,542,000	3.03	19,833,000	7.0	0.34
Anhui	6,833,000	2,873,000	2.38	22,044,000	6.6	0.27
Chekiang	5,531,000	3,340,000	1.67	24,467,000	6.4	0.26
Kiangsi	6,383,000	3,800,000	1.68	27,167,000	7.5	0.28
Hubei	7,500,000	3,636,000	2.07	28,444,000	7.4	0.25
Hunan	6,166,000	3,831,000	1.59	49,783,000	8.2	0.42
Szechwan	20,833,000	6,038,000	3.45	13,158,000	8.1	0.22
Fukien	2,960,000	1,621,000	1.82	37,168,000	7.0	0.24
Kwangtung	8,734,000	5,310,000	1.68	12,258,000	7.0	0.24
Kwangsi	2,951,000	1,771,000	1.67	11,115,000	7.5	0.24
Kweichow	2,716,000	1,482,000	1.67	9,839,000	7.6	0.20
Yunnan	1,016,000	1,300,000	1.47	414,012,000	7.1	0.365
China Proper	151,016,000	58,531,000	2.58	12,487,583	7.4	0.61
Fengtien	7,631,000	1,738,000	4.40	5,511,406	9.3	1.41
Khren	7,480,000	589,000	12.68	4,000,000	12.2	1.62
Heilungkiang	6,478,000	336,000	19.30	22,083,000	8.2	0.98
Manchuria	21,589,000	2,661,000	8.11	.....	.....	.....
Jehol	2,714,000	620,000	2.73	.....	.....	.....
Charhar	944,000	116,000	8.13	.....	.....	.....
Suiyuan	913,000	67,000	13.67	.....	.....	.....
Mongolia Inner	4,571,000	803,000	4.45	.....	.....	.....
Sin Kiang	2,004,000	460,000	4.36	2,491,000	5.4	0.8
China and Dependencies	170,180,000	62,455,000	2.85	442,046,000	7.1	0.4

There appears to be, therefore, about ten times as much cultivated land per person in the United States as in China. Furthermore, the American citizen has access to the world markets, whereas the buying range of the Chinese peasant is limited to a half day's walk or approximately an area with a diameter of fifty miles.

The three food crops, rice, wheat and the sorghum-millet occupy 69 per cent of the cultivated land. Very little of the land is used for fiber and forage crops, because the returns from the food products yield a greater return, therefore, the most valuable land must be reserved for its growth—an economic principle which makes itself felt in our own cornbelt.

Rice, the most important crop, is cultivated primarily in the southern provinces as indicated by these data:

TABLE II.

Province	Acres	Percent of Cult. Land.
Chihli	246,000	17%
Shantung	253,000	2%
Honan	1,260,000	8%
Shansi	827,000	11%
Shensi	340,000	6%
Kansu	73,000	2%
Kiangsu	5,000,000	36%
Anhwei	3,500,000	51%
Chelziang	3,817,000	69%
Kiangsi	4,650,000	70%
Hupei	4,750,000	64%
Hunan	4,396,000	71%
Szechwan	6,981,000	34%
Fulzi	2,100,000	70%
Kwangtung	6,200,000	70%
Kweichow	1,852,000	69%
Yunan	1,230,000	68%
		64%
China Proper	49,572,000	32.8% Total
Fengtien	180,000	2%
Kirin	109,000	1%
Heilunglziang	8,000	....
Manchuria	357,000	1.7% Total
Jehol	3,000	....
Charhas	90,000	10%
Suivan .....	.....	....
Mongolia	93,000	 Total
Sinkiang	88,000	4.4% Total
China and Dependencies.....	50,110,000	28.0% Grand Total

Wheat is the leading crop in northern regions. About one-fifth of the total cultivated land is devoted to wheat, whereas in the provinces of Kansu 50% of the cultivated land is sown to wheat. The yields per acre are somewhat lower than in the United States.

TABLE III.

Province	Wheat		Sorghum and Millets	
	Acres	Percent of Cult. Land	Acres	Percent of Cult. Land
Chihli	2,905,000	21%	966,000	39%
Shantung	6,028,000	37%	5,340,000	40%
Honan	5,961,000	36%	5,255,000	33%
Shansi	2,159,000	29%	5,833,000	35%
Shensi	2,473,000	26%	1,833,000	25%
Kansu	1,500,000	50%	362,000	7%
Kiangsu	4,061,000	29%	367,000	12%
Ankurie	1,645,000	24%	2,114,000	15%
Chekians	650,000	11%	603,000	9%
Kiangsi	250,000	4%	116,000	2%
Hupei	900,000	12%	19,000	..
Honan	608,000	5%	594,000	8%
Szechewan	4,166,000	20%	40,000	1%
Fulzhen	287,000	10%	2,100,000	10%
Kwangtung .....	.....	.....	.....	..
Kwangsi	100,000	4%	.....	..
Kweichow	125,000	5%	50,000	2%
Yunnan	200,000	10%	100,000	5%
China Proper.....	34,318,000	22.7%	26,697,000	17.7%
Fengtien	221,000	3%	4,465,000	58%
Kirin	1,048,000	14%	2,414,000	32%
Heilung Kiang	153,000	18%	2,025,000	31%
Manchuria	2,422,000	11.2%	8,904,000	41.2%
Jehol	103,000	4%	2,226,000	83%
Charhar	612,000	65%	174,000	18%
Suiyuan	159,000	18%	416,000	46%
Mongolia	874,000	19.1%	2,816,000	61.6%
Sinkiang	801,000	40.0%	72,000	3.6%
China and Dependencies	38,415,000	21.6%	37,489,000	21.0%

Sorghum and millets as indicated in the above table, play an important part in the agriculture of China. These crops are being crowded out by the soy-bean.

TABLE IV.
NUMBER OF LIVESTOCK IN CHINA

(From Statistical Tables of Agriculture and Commerce, 1918, Division of Statistics, Department of Agriculture and Commerce, Peking, 1922. except that estimates were necessary for Hunan and Szechwan, Kwangtung, Kwangsi, Kweichow, Yunnan. Sheep data for these provinces are from Chinese Economic Monthly, Nov., 1924.)

Province or District	Horses	Mules and Asses	Cattle	Swine	Sheep	Poultry
Capital District.....						
Chihli.....	225,459	74,618	31,210	152,014	56,335	1,138,000
Shantung.....	311,181	514,407	516,711	2,995,591	1,032,800	8,258,000
Honan.....	184,795	937,506	974,726	2,145,203	788,493	16,672,000
Shansi.....	263,704	670,510	945,160	1,230,683	1,016,261	12,005,000
Shensi.....	97,058	314,983	304,330	391,853	3,835,401	2,321,000
Shensi.....	191,915	179,995	519,363	845,953	1,000,389	2,610,000
Kansu.....	236,620	383,116	455,841	529,410	5,285,065	2,770,000
Kiangsu.....	39,274	268,523	1,209,411	4,868,897	885,432	33,555,000
Anhwel.....	127,380	472,492	1,345,726	4,926,986	888,689	31,595,000
Chekiang.....	1,406	5,368	577,184	1,942,192	743,888	18,772,000
Kiangsi.....	30,675	7,411	1,409,083	3,372,642	94,755	18,772,000
Hupeh.....	154,619	142,352	1,604,544	4,868,910	874,716	23,370,000
Hunan.....	40,000	9,000	1,450,000	4,000,000	702,948	23,000,000
Szechwan.....	280,000	230,000	3,600,000	10,000,000	2,780,987	45,000,000
Fukien.....	8,804	2,027	370,547	1,828,137	387,891	12,382,000
Kwangtung.....	5,000	1,000	1,700,000	5,000,000	385,465	40,000,000
Kwangsi.....	5,000	1,000	600,000	1,800,000	311,722	13,000,000
Kweichow.....	30,000	7,000	600,000	1,600,000	77,874	9,000,000
Yunnan.....	40,000	20,000	500,000	1,100,000	1,006,140	8,000,000
China Proper.....	2,110,279	4,241,308	18,713,836	53,598,471	21,564,849	323,156,000
Pengtien.....	808,734	343,543	476,239	4,574,610	611,674	8,458,000
Kirin.....	616,742	113,695	506,557	2,191,553	219,839	4,535,000
Helung Kiang.....	764,776	70,619	259,623	1,974,839	236,884	2,817,000
Manchuria.....	2,190,251	627,857	1,241,419	7,051,002	1,087,397	15,810,000
Jehol.....	160,136	124,231	182,759	394,969	582,642	2,016,500
Chariar.....	61,710	12,753	104,528	207,043	552,125	453,000
Suiyuan.....	61,606	28,290	104,407	90,300	498,786	167,000
Mongolia Inner.....	273,452	165,364	391,694	692,312	1,633,553	2,641,000
Sinkiang.....	166,218	305,253	508,291	23,477	4,324,818	3,080,000
China and Dependencies.....	4,702,200	5,239,782	20,355,240	61,365,262	28,590,617	344,687,000

Horses are relatively scarce, and are concentrated primarily in the northern states. This appears to be due to climatic conditions which favor the water buffalo in the south.

Mules and asses are relatively numerous though poor of quality, a condition characteristic of most of the livestock in China.

Cattle are used primarily for draft purposes. It appears as if the soy-bean serves as an excellent substitute for dairy products.

Swine are as numerous as in the United States, but there is no meat packing industry in China analogous to that in this country.

Sheep thrive in the semi-arid states and offer a potential source of great wealth.

Poultry are commonly found on nearly every Chinese farm and this industry serves as a basis for a lucrative export trade.