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Observations of China's Agriculture

China, with one-fifth of the world's population, has always been held in fascination by the Western world. Her land mass exceeds only slightly that of the United States and is itself exceeded only by Russia and Canada. However, only about 11 percent of China's land is under cultivation and nearly 80 percent of her 800-plus million people are engaged in farming to supply basic food and fiber needs. This contrasts with the less than 5 percent of our population who produce enough food and fiber to supply ourselves abundantly, in addition to the exports of more than one-fourth of what we produce to foreign markets. In California about one-third of our 100 million acres is devoted to crop production, and it yields enough to permit 25 percent of it to enter foreign export markets.

As a member of California's Agricultural Mission to China, I recently had an opportunity to compare the agrarian agriculture of China with the industrialized agriculture of the United States. Under the leadership of California's Director of Food and Agriculture Richard Rominger and Director of International Trade Richard King, 23 people toured China as guests of the Chinese Ministry of Agriculture. We visited communes near Beijing (Peking), Shanghai, and Kwangchow (Canton) and state farms near Urumchi in Sinkiang-Uigur Autonomous Region of Western China, as well as the Shanghai Academy of Agricultural Sciences. In all areas we met with government agricultural officials and leaders of state farms and communes. Although our 12-day schedule in China was intensive, was somewhat superficial, and involved travelling long distances, it afforded us many impressions from which to draw limited conclusions about the agricultural systems of our two countries.

China's agriculture is not only labor-intensive, it is also crop-intensive. With such a small amount of total land area available for cultivation, two to three crops per year are often grown where the weather permits. A second crop of rice is transplanted a few days after the first crop is harvested and the second crop is followed by a winter wheat crop. Fruit, vegetables, and grain are mostly harvested by hand, and the grain is threshed and cleaned by treadledriven beaters and blowers. It was a surprise to see grain being dried along the edges of highways, attended by men and women workers who periodically turned it over during

the day with wooden rakes or bundles of rice straw resembling brooms. It was sacked at night in burlap bags, and the process repeated each day until the grain was dried sufficiently to permit storage and use.

All land, no matter how small in area or how inaccessible from adjacent parcels where water is available, is under some kind of crop cultivation.

Only in Sinkiang-Uigur Region did we see agriculture which somewhat resembles that of the Western world. There, 80-acre blocks of land are devoted to potatoes, cotton, corn, and fruit trees, with suitable irrigation systems to match these larger acreages of crops.

The facilities of the Shanghai Academy of Agricultural Sciences resemble the very early days of our own Agricultural Experiment Stations where work was devoted largely to varietal improvements, fertilizer and soil studies, and identification and control of diseases and pests. There is no formal relationship among the agricultural colleges, the academies, or any extension activity. Communes have their own agricultural research and extension specialists with no obvious link to the academies or colleges.

The Chinese are eager to improve their production. They seem anxious to adapt to their system improved technologies and scientific advances in agriculture. They are aware of the necessity to keep their people occupied with jobs, so that there will be a limit to the kinds of technology which will be transferred and the rapidity with which they will be incorporated. California's agricultural system is not what China needs today. However, one of the systems China should be developing as rapidly as she can is the formal linkage of teaching, research, and extension in agriculture.

China is a country with well defined goals and a disciplined determination to achieve them. Her people are friendly and proud. Under China's present political leadership and philosophy, a mutually beneficial relationship between our two countries can flourish. In the agricultural sciences, in particular, a renewed friendship and working relationship will be particularly rewarding for all concerned.