

PolicyPennings by Dr. Daryll E. Ray

Windshield farming in China

In this column we continue our examination of agri In recent weeks our column has dealt with various aspects of Chinese agriculture. In those columns, we have relied on data from the USDA. This week we continue our look at the agriculture of China, only this time our source of information is different. We are in China and want to share with you some of the images we have seen with our own eyes.

Our trip in China is being hosted by Prof. Ouyang Zhu and Prof. Li Yunsheng of the Institute of Geographical Sciences and Natural Resources Research of the Chinese Academy of Sciences (CAS). The other researchers traveling with us from the University of Tennessee are Dr. Don Tyler, Dr. Dayton Lambert, and Dr. Lixia He. The trip is a follow up to a previous collaboration Tyler established between the University of Tennessee Experiment Station and CAS.

After a couple of days of looking around Beijing, eating a wide variety of delicious and sometimes very spicy foods, making presentations, and meeting with researchers from both the Chinese Academy of Sciences and the Chinese Academy of Social Sciences, we boarded a train and headed for the CAS Yucheng Comprehensive Experimental Station—a four hour train ride south of Beijing.

The high-speed train slowly made its way out of Beijing and then sped up as we floated along the rails with the countryside of the North China Plain whizzing past our window. June is the time for the winter wheat harvest and we saw the golden wheat fields spread out along the way like so many loaves of bread, fresh out of the oven. Tyler says that in a matter of weeks nearly all the millions of acres that are now in wheat in the North China Plain will be planted to no-till corn.

It appears to us that Chinese farmers use nearly every available parcel of land to grow something. We saw small triangular plots of wheat that were smaller than many suburban front yards. While it would be difficult to turn a combine with a 24 foot header around in fields like that, it would be impossible to use a combine to harvest the four rows of wheat that were drilled along the tops of the dikes that separated various fish ponds along the railroad right of way. But there the wheat was in straight rows waiting for the harvest.

We have heard numerous stories about the small

size of the average parcel of land available to farmers in China. Based on that information and our experience, we expected to see small half-acre plots with a farmhouse, farmyard, and a couple of outbuildings surrounded by the farm ground. While there may be places like that, most of what we saw were small villages where the farmers lived surrounded by vast fields of wheat and other crops. It seems that the farm plots are aggregated into large units in which farmers cooperate in planting and harvesting decisions, but take responsibility for the cultivation of their own parcels. People were in the fields everywhere. We saw lots of hand labor and occasionally animal power and mechanical equipment in the fields.

Clearly the land is highly productive with high levels of agricultural output per unit of area. Closer to major cities, more of the land is dedicated to vegetable production. We saw vegetable production in fields and greenhouses. In some vegetable and cotton fields farmers used plastic mulch to keep weed-ing to a minimum.

Kilometer after kilometer as we rode by in the train, we saw a vast array of agricultural production systems. And all of the land appeared to be under highly intensive cultivation. What we saw with our eyes brought home the idea that the Chinese are strongly motivated to use every conceivable agricultural resource to its fullest extent in this part of China.

Looking at the beehive of agricultural activity, one cannot miss the idea that food production and the needs of the agricultural sector are high priorities for the nation. We have seen farms in the US and elsewhere, but this was like nothing we had seen before. Based on what we saw riding through the North China Plain, it is no wonder that China has not begun importing significant amounts of grain from the US or anyone else, for that matter.

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