

A Picture is Worth 898 Words: Changing Agricultural Landscapes of the Dakotas

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Photograph by the Author

Fewer than 19% of Americans live in areas classified as “rural”. Moreover, only 0.7% of Americans (according to the 2007 USDA Census of Agriculture) are farmers. Yet, this miniscule segment of the population is responsible for maintaining well over 60% of our country’s land through ranching and growing crops that provide food, fuel, and fiber. That is a substantial burden to bear, and yet it is one that often goes unnoticed by the remaining 99.3% of Americans.

Because the agricultural landscape changes slowly, many of the transitions go

unnoticed. On the other hand, “sexier” and more easily-politicized movements and rallying cries such as “save the land,” “eat organic,” “down with urban sprawl,” and “eat locally sourced food” are often front-page news. What most Americans fail to realize is that there are multitudes of socio-economic and socio-ecological forces that work together at multiple spatial and temporal scales driving these transformations. Without direct ties to agriculture, many people decry the transition from general farming practices to more corporatist and monocultural prac-

tices. Most fail to see their own complicity in this transition. Who among us hasn’t recently eaten a hamburger, filled his or her car’s tank with gas, enjoyed a carbonated soft drink, or in one way or another purchased and consumed one of the thousands of other products made from the corn-soy dominated agricultural landscape?

One change happening on the rural landscape can be observed in the James River Valley of North and South Dakota (Figure 2). As our insatiable (global) appetite for *Zea mays* (corn) and *Glycine max*



Figure 1. South Dakota’s changing agricultural landscape.



Figure 2. Counties along the James River valley in North and South Dakota.

(soy) continues to increase, this region's agricultural landscape is being quietly transformed.

The James River originates in Wells County North Dakota, and winds its way gently 710 miles south to just east of Yankton, South Dakota, where it meets the Missouri River. Known as the "unnavigable river" to early Dakota Indian tribes, its meager 700 foot drop in elevation creates a multitude of meanders and a slow rate of discharge, which creates – more in some years than others – difficulty in finding water deep enough to paddle a canoe. The southern portion of the James River Valley

has long been entrenched in Corn Belt agriculture. For decades, counties from Sanborn County, SD south to the Missouri River have planted nearly 30% of their cropland to corn. Evidence of this early Corn Belt status can be seen in Mitchell, SD – home to the Corn Palace and the Mitchell High School Kernels, whose mascot, a supersized ear of corn named Cornelius, intimidates rival schools from around the region.

But just to the north of Mitchell, some major changes are occurring. From LaMoore County, ND south to Spink, these counties have, over the past five decades, seen marked increase in the amount of cropland devoted to growing corn – in some cases by as much as twenty percent. In aggregate terms, this region's agricultural landscape hasn't changed much; in 1954 80% of the land was cropland and the remaining 20% was pastureland. In 2007, that proportion was more or less unchanged. Too flat to drain, yet too poor to crop, most pastureland has remained in pasture for lack of alternative uses. The remaining 80% that was used in the 1950s for growing wheat, oats, barley, flax, rye, and only meager acreages of corn, today grows an ever-increasing volume of corn and soy, where in some cases more than 75% of cropland is devoted to growing only those two crops.

To handle this ever growing demand for corn and soy-based products, new, state-of-the-art infrastructure in this region has recently been built to help facilitate the storage, processing, and movement of massive amounts of grain - mostly corn and soy - to destinations as far away as Asia, opening up new and expanding global and domestic agricultural markets to the farmers of this region. One such facil-

ity (Figure 1), located just east of Andover, SD is capable of storing three million bushels of corn, soy, and wheat. It is part of the James River Valley's new agricultural landscape. Unit trains can be loaded in less than eight hours that are bound for Pacific Northwest ports. Grain from these storage facilities also serve other distant domestic agricultural rail-markets such as ethanol facilities in Illinois, Nebraska, and Missouri, and livestock producers in Missouri, Texas, and Arkansas.

An identical facility has also been constructed on the west side of the Valley, about 70 miles west of Andover, in the small town of Roscoe. These two facilities, both on the east-west running BNSF rail line, are part of a much larger project where twelve South Dakota Wheat Growers facilities will be updated to handle and process ever-increasing quantities of corn and soy, making the 'Wheat' in the company name ever more irrelevant. The reasons for the upgrades are the increases both in the level of (grain handling) *speed* and (storage) *space*; upgrades that should help the farmers of this region market the products they are producing.

South Dakota's agricultural landscape is changing, albeit slowly. Today's landscape is a mosaic of the old (e.g., the barbed-wire fence, grazing cattle, bales of hay, pastureland, and fields of wheat) alongside the new (e.g., the towering grain elevator and the ever-increasing presence of corn and soy). To the casual passerby these changes may appear benign. Such changes do, however, signal shifts in global forces that impact even the most secluded agricultural regions of our country.