



June 17, 2011

FIELD TO MARKET UPDATE

To grow enough food for 6.8 billion people, that is agriculture's challenge by the year 2050. A representative of the Kellogg Company, at a meeting last week on UNL's East Campus, said it will take 1.3 Earths' worth of Natural Resources. To grow enough food for 9 billion people, it will take 3 Earths' worth of Natural Resources. With a huge challenge ahead, can the U.S. farmer continue to increase corn yields or are we starting to level out? Large advances in genetics and farmer best management practices, we went from 70-80 bu/ac corn yields in the 1950's (under pretty decent management practices) to regular 230-240 bu/ac today under irrigation.

Certain corporations involved in the food business have goals to be a responsible corporate citizen, continue efforts to build a strong business, while doing what is right for the environment and society. The Field to Market project in Saline County with Bunge or the Crete Mill has 22 farmers that are being surveyed for practices being used to raise corn. In return, farmers learn about Bunge and Kellogg's energy and emissions footprint and see comparisons with their own farming enterprise with selected sustainability measures. It's a unique idea and farmers in this area at last week's meeting decided to continue on with the pilot project.

There is a website called Field to Market, www.fieldtomarket.org, that will be updated as a result of these producers input and participation. The Field to Market footprint measures Land Resource Efficiency = Planted Area per Unit of Production; Soil Erosion Efficiency = Average Soil Erosion Above T* per Unit of Production; Irrigation Water Use Efficiency = Quantity of Irrigation Water Applied per Unit of Production; Energy Efficiency = Total Energy Used (direct and indirect) per Unit of Production; Climate/Greenhouse Gas Efficiency = Sum of Direct and Indirect GHG Emissions per Unit of Production; and Soil Carbon Sequestration = Annual Average Change in Soil Carbon.

Farmer level primary data was collected during February and March 2010. Data was collected using a paper survey following a farmer orientation meeting at the Bunge Mill in Crete. Follow-up calls by Randy Edwards and in-person visits were made with survey participants to answer questions and to insure completed survey return. Survey data was entered into a spreadsheet and soil, tillage and cropping practice data were also provided to NRCS staff in Nebraska for analysis using the RUSLE2 soil loss methodology.

The scope of the analysis is intended to cover direct and indirect energy and green house gas emissions generated from farm activities as well as embodied in product used to produce corn such as fertilizer, seed, and crop protection products. The measures provided in this report include hauling of the crop from the field to the farm and/or directly to the Bunge Mill in Crete.

It was determined at the meeting at UNL that 3 to 5 years of data would be much more useful for farmers to compare their operation's footprints. Data were collected for a representative non-irrigated and representative irrigated field for the 2009 growing season. This summer, growers will use the Field to Market website to update their 2010 records. Farmers were asked to report their actual field yields and production practices for a specific field but they were asked to choose



the fields that are generally representative of their normal farming practices and typical yields.

Attending the meeting in Lincoln included University of Nebraska administration and faculty, extension educators Paul Hay and myself, Natural Resources Conservation Service, Nebraska Corn Growers Association, Nebraska Corn Board, Nebraska Farm Bureau, The Nature Conservancy, Coca-Cola, Monsanto, Kellogg, Bunge and Field to Market (Keystone) representatives.

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