1) May 15 – December 15, 2011

Deliverable:

- A demonstration scale version of Global Grain in 3-D [tm] an interactive software program to be run off of the ADM Institute's web site. Users would be able to explore the world of corn, soybeans, and wheat across a variety of analytical spaces by crop/country/year; post-harvest loss, imports/exports, production and consumption, and socio economic variables. A video about the software can be found @ http://globalfoodin3d.com/ (and Appendix 1).

2) August 16, 2011 – July 15, 2012

(A third semester (Fall 2012) and possibly a fourth semester (Spring 2013) will be requested to complete the students Masters degree)

One 50% Masters research assistant for the 2011-2012 academic years, for Ms. Ana Maria Martins. Ana is an experienced researcher from the private Brazilian research organization, IMEA. IMEA collects and analyzes all of the agricultural price and production data for the State of Mato Grosso Brazil. Ms. Martins interned at the National Soybean Research Laboratory and the Department of Agricultural and Consumer Economics from 2009-2010.

The working hypothesis for Ms. Martin's research is that the lack of financial transparency limits small and medium farmer's access to the capital needed to build on-farm storage. Credit risk in Mato Grosso, like many developing countries, is high, which in turn raises the cost of capital. The opportunity cost of transparency too is high, creating the market failure for readily accessible capital that can be used for storage construction. Previous analysis by IMEA identified a lack of credit limiting the construction of on farm storage. Additional research has shown that Mato Grosso, like many regions in developing countries, face some of the weakest and most volatile price bases in the world. The lack of storage and low prices at harvest create a cycle of financial stress. The objective of this research project is to test the hypothesis that financial transparency is a major driver of the problem. Ms. Martins would then present policy options to address the problem if in fact transparency proves to be a significant factor limiting on-farm storage investment.

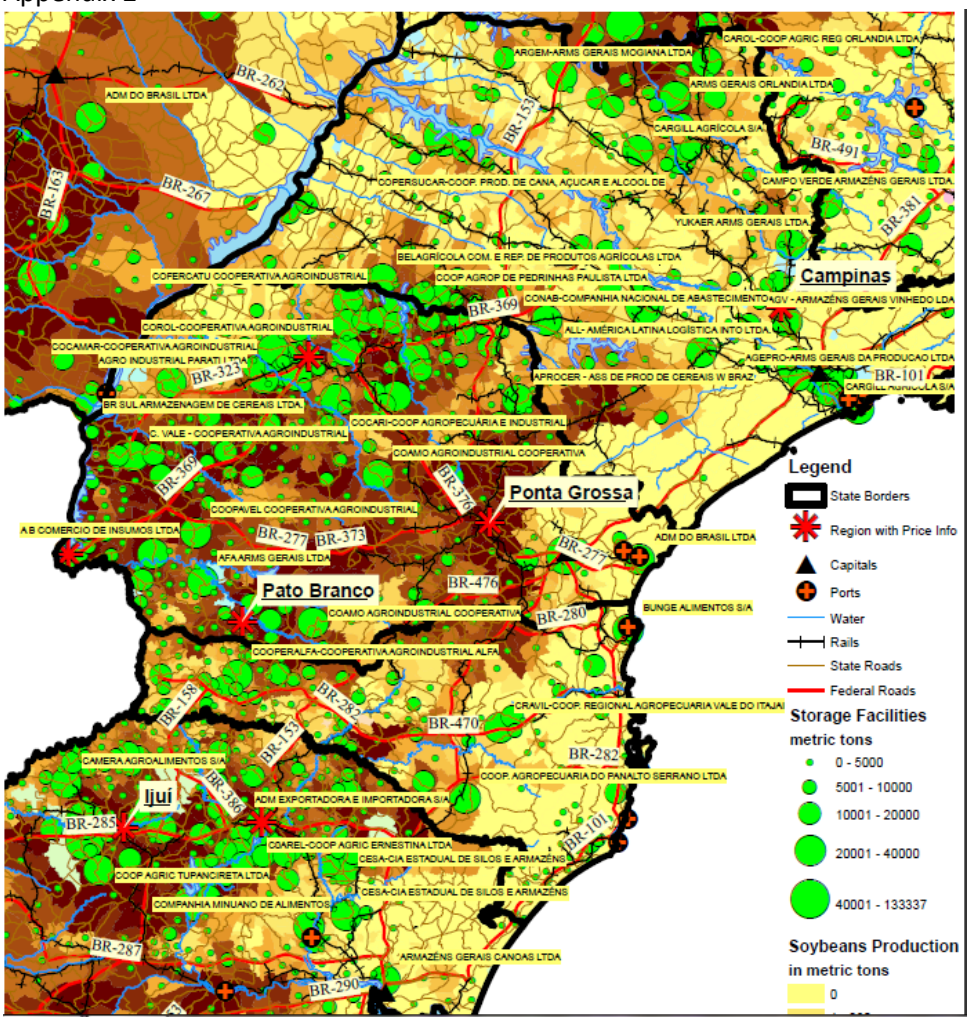
Deliverables:

- July 15, 2012
  - A dynamic multilayer geographic information map of all grain storage in Mato Grosso and its supply chains to the ports of Porto Vehlo, Santarem, Paranagua, and Santos.
  - Data are currently in place
  - Maps have been developed for three other states in Brazil
    - These maps were part of our presentation to ADM of our capacity for post-harvest research in Brazil (Appendix 2).
- May 15, 2012
  - A literature review and statistical overview of:
  - the state of on-farm storage in Mato Grosso
  - the state of PH transport losses from farm to port.

Appendix 1


Global Feed in 3D!
File Export View Tools Window Help
Settings
Demographics
Consumption
Per Capita Consumption
Consumption Net Change
GDP
Per Capita GDP
GDP Net Change
Population
Population Net Change
Long Run Elasticity
Commodities
Map
Elasticity
Normalize Heights Each Year
Countries
Region
Markets
Change the map im
2026 - looping
Loop?
Speed - 14X
Filter - 0%
Powered by
vizard
WORLDVIZ.com

Appendix 2


Campinas
Ponta Grossa
Pato Branco
Ijui
Legend
State Borders
Region with Price Info
Capitals
Ports
Water
Rails
State Roads
Federal Roads
Storage Facilities
metric tons
0 - 5000
5001 - 10000
10001 - 20000
20001 - 40000
40001 - 133337
Soybeans Production
in metric tons
0