Possible Coordinated Ag Impacts Inter-method Modeling Comparison Exercise—Steve Rose

1. Introduce regional intrinsic agricultural yield shocks into IAM and economic structural models (as partial factor productivity shocks) for different levels of climate change

2. Run IAM and economic models in two different modes with yield shocks (might be able to include emulators in here as well):
   a. Mode 1 – Constrained to mimic econometric study partial equilibrium conditions (e.g., fixed technology, no crop substitution, no land use change)
   b. Mode 2 – Unconstrained in default operational mode

3. Interesting opportunities for analysis
   a. Comparison of results from mode 1 scenarios to econometric estimates
   b. Comparison of modes 1 and 2 results across structural models
   c. Market adaptation responses isolated by difference between mode 2 and mode 1 scenario results (e.g., shifts in output, land-use change, demand responses, shifts in trade, budget re-allocation)
   d. Some interesting outputs (for various commodities) – yield percentage changes, input utilization/substitution percentage changes, output percentage changes