

The USDA/Land Grant Extension Outlook Program -- A History and Assessment

"Whatever draws us from the power of our senses, --
whatever makes the *past*, the *distant* or the *future*
preponderate over the *present*, advances us in the dignity
of thinking beings."

-- Dr. Johnson

Jake Ferris
Professor Emeritus
Department of Agricultural, Food and Resource Economics
Michigan State University

July 2010

The USDA/Land Grant Outlook Program – 1923 to 1960

The program began in 1923 under the leadership of Henry C. Wallace, Secretary of Agriculture, and Henry C. Taylor, Chief of the BAE. The development was shortly after and parallel with the expansion of the program of the National-State Agricultural Statistics Services, so crucial for forecasting. While centered in the USDA at the beginning, state economists were soon involved. The structure was well established by 1930 centered on the national and regional conferences and expanding state programs year around.

State farm management specialists worked with county extension agents in implementing the program in the 1920s and 1930s.

The outlook program structure was an asset as the emphasis shifted from agricultural adjustment in the Great Depression of the 1930s to stimulating production in World War II.

The Structure – About 1960 to Date

State programs took on various forms with strong involvement with the mass media, including magazines, radio, later TV, electronic transmission and the internet. Outlook meetings were basic. Commodity specialists depended on the National and Regional Agricultural Outlook Conferences for support along with the USDA's regular "Situation and Outlook Reports." More recently, the USDA's monthly forecasts from the World Agricultural Outlook Board for the coming year have been a central source.

The major shift for state specialists has been away from the national conference and to the regional conferences for support.

Assessment of Monthly to Annual Forecasts

- **Positive**
 - Endurance over 87 years with basic structure intact
 - Popularity of the subject in the media
 - "The Outlook" draws attention providing opportunities for economic education.
- **Accuracy**
 - Numerous evaluations from 1926 to 1952
 - Mostly monthly or next few months
 - Consensus -- 65-80% correct, 10% wrong
 - AAEA Outlook Survey, 1978 to date
- **Considerations and Challenges**
 - Only few evaluations have compared forecasts with alternative models.
 - Are markets efficient? Can you beat them?
 - Measuring forecasting errors contributes to our data base for risk management.
 - Few forecasts carry probabilities.
 - University of Illinois – "innovations ... have the potential to substantially improve the accuracy of outlook price forecasts." -- 2009

Long Range Projections and Forecasts

- **As early as 1924**
- **Pick up in the 1950s and 1960s**
 - **USDA under leadership of Koffsky and Daly**
 - **Broad based college projects starting in the 1960s**
- **Econometric model development in the 1970s and 1980s – rapid expansion**
- **Emerging in the 1980s and 1990s were FAPRI's and the USDA's annual Long-term Projections Reports**
- **Assessment**

"In the space of one hundred and seventy-six years the Lower Mississippi has shortened itself two hundred and forty two miles. That is an average of a trifle over one mile—and a third per year. Therefore, any calm person, who is not blind or idiotic, can see that in the Old Oolitic Silurian Period, just a million years ago next November, the Lower Mississippi River was upward of one million three hundred thousand miles long, and stuck out over the Gulf of Mexico like a fishing-rod. And by the same token any person can see that seven hundred and forty-two years from now, the Lower Mississippi will be only a mile and three quarters long, and Cairo and New Orleans will have joined their streets together, and be plodding comfortably along under a single mayor and a mutual board of aldermen. There is something fascinating about science. One gets such wholesale conjecture out of such a trifling investment of fact."

--- Mark Twain

Challenges to Long Range Projections/Forecasts

- **Rapid structural changes in global agriculture**
- **Difficulty in projecting technological change**
- **Limitations in supply functions**
- **Fixed elasticities**
- **Transparencies of the models**

Conclusion: Substantial funding will be required to convert policy oriented models into reliable forecasting models.

Evaluation of Fifth and Tenth Year Projections by FAPRI and USDA on Selected Crop and Livestock Variables in Terms of Absolute Percentage Errors

- **Greater on crops than livestock**
- **Greater on tenth year than fifth year (except on prices)**
- **Over 10% on exports**
- **At or over 20% on crop ending stocks and prices**
- **At or over 10% on livestock prices**
- **Most of the other variables were under 10%**
- **Removing 2006 to 2010 cut the crop price errors by an average of 40%; on livestock prices by 25%**

Conclusions

- Endurance attests for value to farmers, agri-businesses, policy makers, consumers, etc.
- Commendable accuracy but value lies in educational impact
- Areas needing attention
 - Refinements to short term and annual forecasting techniques
 - Probability forecasts and stochastic modeling
 - Transparency of model structure
 - How to transform long range projections into forecasts
- For a copy of the paper, email me at jakemax33@comcast.net