

## FARMING NOTES – FEBRUARY 2014

**Value of Ag Research** – There have been 1,858 estimates from 294 post-war (WWII) studies from around the world to study the impact of R&D investment in agriculture. The internal rate of return averaged 64.2% per year from research only, 46.3% for research and extension combined and 75.6% for extension only. A recent paper by Plastina and Fulginiti in J.Prod. Anal (2012) estimated the internal rate of return to public investment in agricultural R&D in each of the continental US states. “We estimate an average own state rate of 17% and a social rate of 29% that compare well to the 9 and 12% average returns of the S&P500 and NASDAQ composite indexes during the same period.”

Much of the fundamental research has been carried out by the public sector and then utilized through extension and commercial companies. It can be argued that new advances are becoming more challenging as the easy solutions have been found. Increases in productivity in both plants and livestock are critical to ensure agriculture can provide the food, feed, fiber and energy required by the 9.6 billion in 2050. Research continues to be vital in the public sector.

**Farming Diversity** – A recent discussion confirmed my belief that the broad diversity of farming enterprises in Chester County and areas close to Philadelphia and Wilmington is a definite advantage. Scale is certainly important in field crops to permit the investment in equipment allowing timely planting and harvesting of the acreages required to support full time employment. We do have high value crops such as vineyards, intensive vegetable production and livestock farms supplying value added products such as cheese. There is a ready local market for produce at farmers markets and supplying restaurants and visitors with local wines. Investment may not need to be so great and so less of a barrier to young or not so young men and women interested in a farming career. What are we doing to attract these people and make it possible for them to realize their dreams of a farming enterprise of their own that actually pays and contributes to the local economy?

WHERE IN THE WORLD DO YOU GET THE HEALTHIEST FOOD?: According to a new food index from international relief and development organization Oxfam, the Netherlands is No. 1 country in the world for having the most plentiful, nutritious, healthy and affordable diet, beating France and Switzerland into second place. The Lempert Report.

**Good news for the dairy industry?** Recent research has found that there is more obesity in kids who have been consuming low fat milk than whole milk. The researchers recommend that the federal guidelines need to be revised.

**Food Labeling** – Changes in food labeling are likely to occur later this year replacing the 1990 Nutritional Labeling Act. **Natural** will be out –

meaningless so will disappear. **Organic** has been the fastest growing segment and “the food companies aren’t going to argue with consumers willing to pay more for the same food.” Organic still only represents a small percentage of overall food consumption.” USDA may introduce stricter regulations for organic produce, “especially overseas”. **GMO** “In no other issue has the science been so overwhelmingly settled but the public so disproportionately frightened. There are over 2,000 different validations of various GM foodstuffs, and the only studies that are in any way negative are the ones put forth by “anti-GMO activists”. The food industry listens to consumer demand, not science and reason. The Grocery Manufacturers Association is planning to lobby for a Federal program to establish voluntary GMO guidelines in an effort to get in front of legislative efforts without taking sides and alienating customers.” Edible Intelligence, Sam Vance, 1/16/2014. At present Maine and Connecticut are the only two legislatures to pass GMO labeling bills, but similar legislation has been introduced in about 30 states, according to the National Conference of State Legislatures.

**Retail Precision Adoption Survey by CropLife magazine and Purdue University** confirms the increasing prevalence of four precision ag technologies. Variable seeding rate was considered the emerging technology with most promise – 49.6% of respondents. Interestingly, to me at least, chlorophyll/greenness sensors, such as CropSpec, GreenSeeker, Optrx, came next with 41% but was considered “an emerging technology but one with an uncertain future.” 30% of respondents thought that autosteer would be a technology that customers would use. “For many years the technologies that measure and manage field variability such as grid/zone soil sampling, remote sensing, and variable rate technology showed little change in adoption. The 2013 survey results indicate a positive shift in adoption, as well as continued optimism for future increase in adoption.” The report concludes sensibly “Thinking forward, the biggest challenge for any technology’s successful, and fast, adoption will be how obvious it is for dealerships, and their farmer customers to realize the value.”

**Multi-hybrid planter** – The implications of GPS based farming are becoming realized in equipment that can vary seeding and fertilizer rates during application. Raven has developed a multi-hybrid corn planter that allows the planting of different corn hybrids depending on different soils – dry or low-lying areas. Good example of public/private research collaboration between South Dakota State University, Raven Industries and DuPont Pioneer.

**FDA and GMOs** – FDA oversees GMOs now through the consultation process and “finds such foods are generally as nutritious as foods from comparable traditionally bred plants.” No surprise but good to hear from FDA.