

## You and The Chesapeake Bay: It's Not The Same Old Farm Keeping the Bay Blue



**IT'S NOT THE SAME OLD FARM**



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## **Then**

### **Little soil testing**

- Followed traditional fertilizer application rate year in and year out

### **Everything was cheap**

- Fertilizer not matched to crop needs
- Soil as a nutrient “bank”
- Cheap Labor- small farms – much lower standard of living - allowed for labor -intensive practices

### **Change in U.S. Farm Policy under Secretary Earl Butz**

- Increase in farm payments; farmers encouraged to plant fencerow to fencerow
- Some payments favored large scale agriculture

### **Poor Manure Management**

- Little to no soil or manure analysis completed
- Spread on closest field available
- Fertilizer value of manure not accounted for

### **More Diversified farms - Less technology and specialization**

- Moldboard plowing was common – causing more erosion
- More crop rotations and forage crops
- Highly productive hybrid seeds not available
- Lower producing crops removed less nutrients from the soil “bank”
- The American farmer fed 19 people per year in 1940, 73 in 1970 and 139 in 2000.

## **Now**

### **Regular soil testing to measure nutrient levels**

- Required at least every 3 years
- Field specific
- Grid sampling/precision agriculture

### **High Cost /Smaller Margins**

- Margins have decreased and production has increased
- World competition from developing nations
- Fertilizer application matched to crop needs determined by soil test results and yields
- Pre-Side dress Nitrate Test (PSNT) is used to determine crop nitrogen
- Cover crops take up excess Nitrogen

### **Improved Manure Management**

- Analysis performed every year
- Spreaders are calibrated to assure even distribution
- Factors in fertilizer credits from previous manure applications and crop credits.

### **More Technology and Specialization**

- Most farms have been forced to specialize due to labor and equipment costs
- Larger farms do not mean more pollution - specialization allows for improved nutrient management.
- Much improved conservation practices that include No-Till and Minimum-Till
- Farmers implement precision farming utilizing yield maps, variable rate planting, variable rate applicators, and GPS.
- Today, technology advancements allow the American farmer to feed 155 per year.

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