

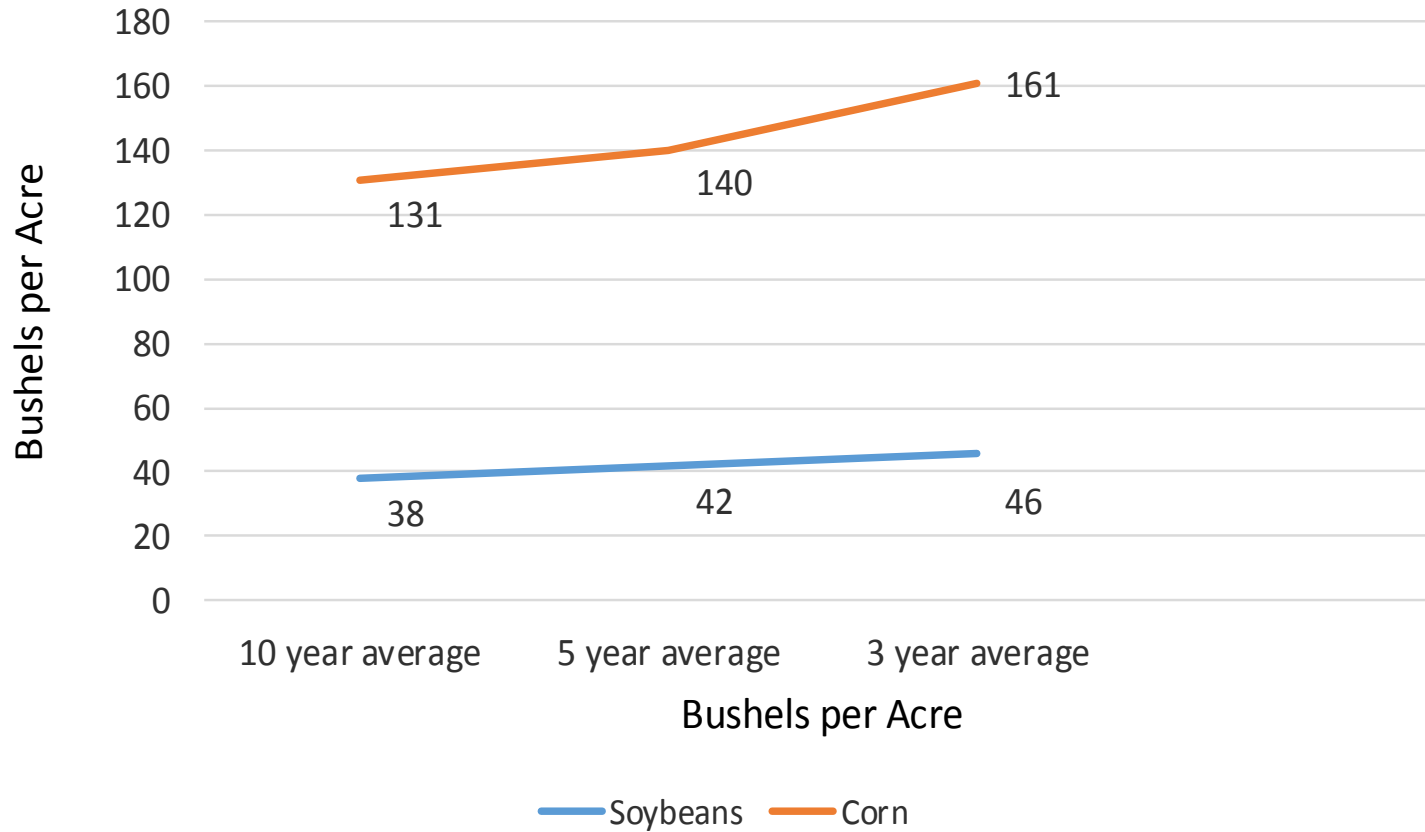
Maximizing Essential Crop Inputs

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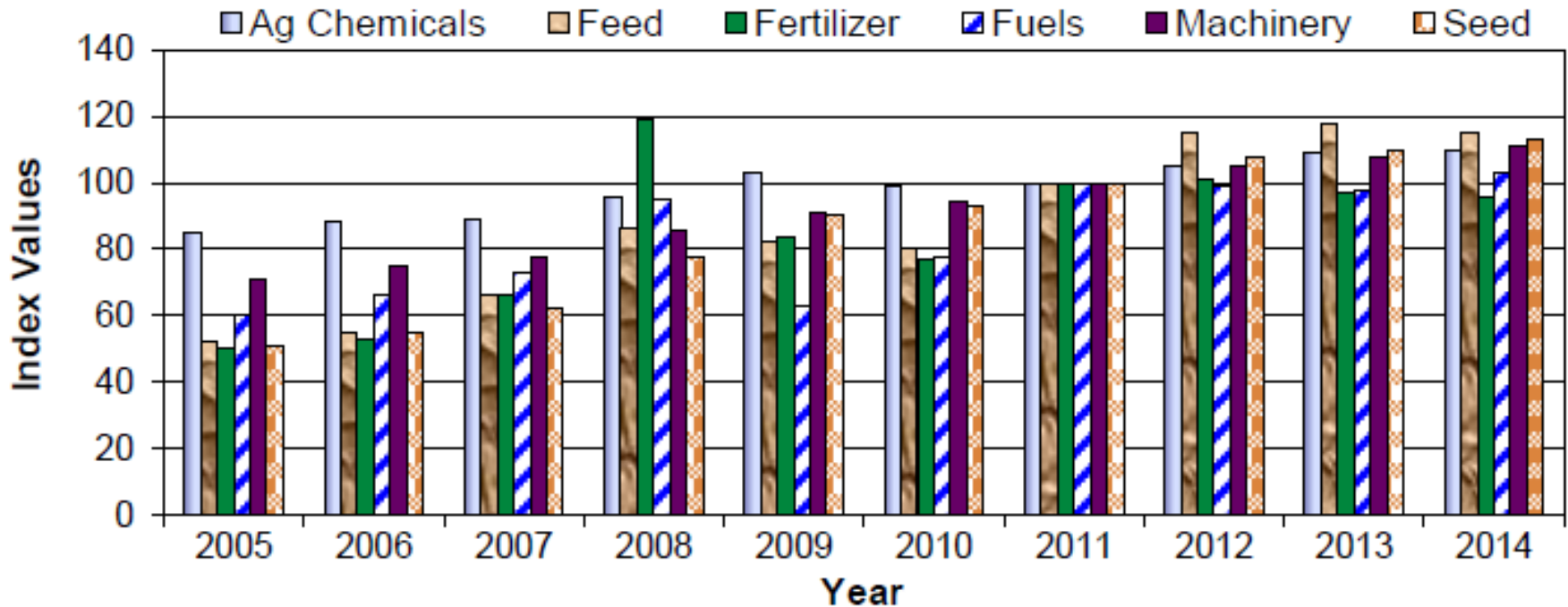
Tennessee State Average Yields Bushels Per Acre



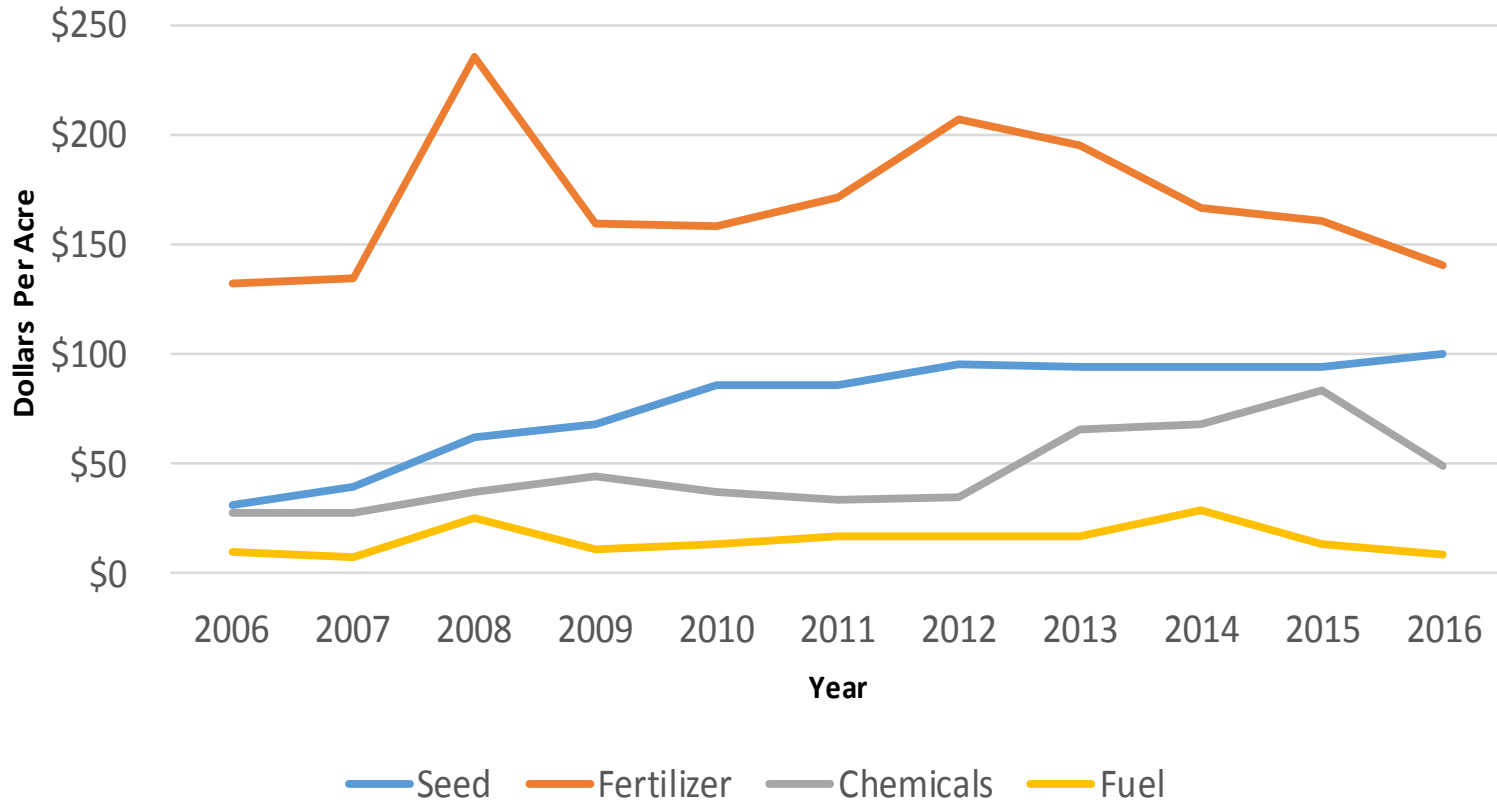
What are essential crop inputs?

- Seed
- Fertilizer
- Herbicide
- Insecticide
- Fungicide
- Machinery
 - Fuel & Repairs
 - Custom
- Insurance
 - Crop & liability
- Labor
- Land
- Family Living ?

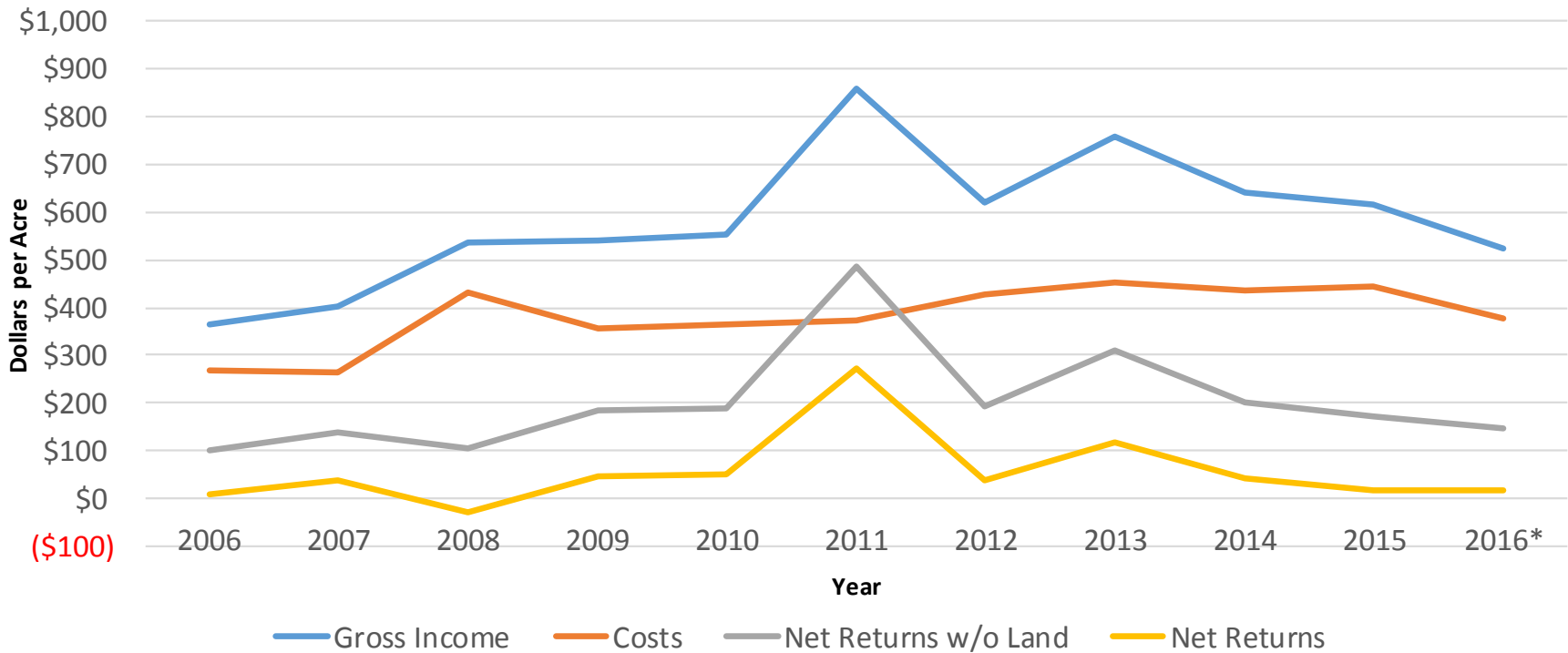
**Indexes of Prices Paid by Farmers, U. S.
 For Selected Production Input Items, 2005-2014
 Index Values: 2011=100**



UT Budgets Per Acre Corn



Returns Per Acre Corn



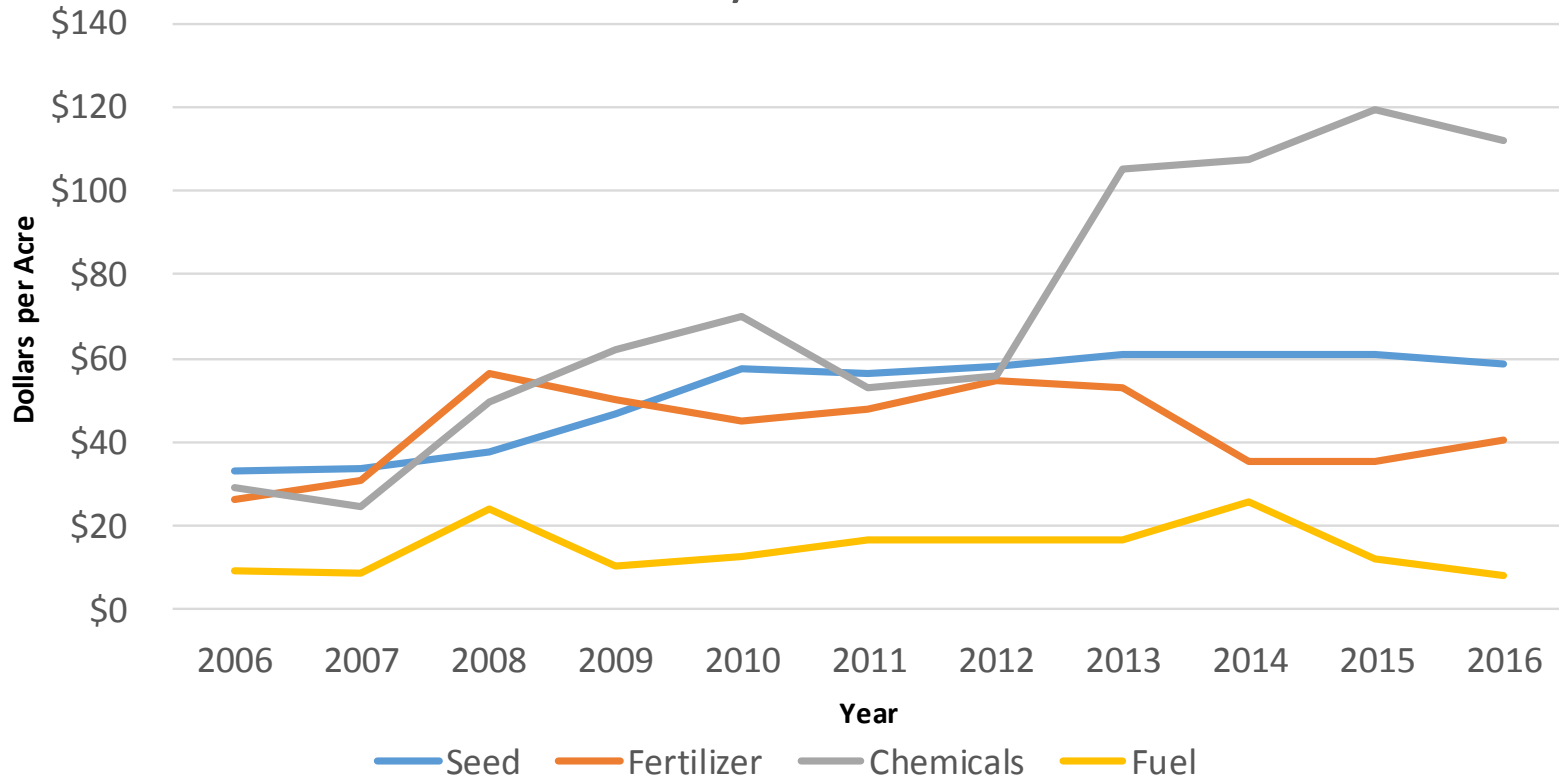
Gross income is TN state average yield X average price.

*2016 yield is 5 year average TN yields X 2016 harvest forward price.

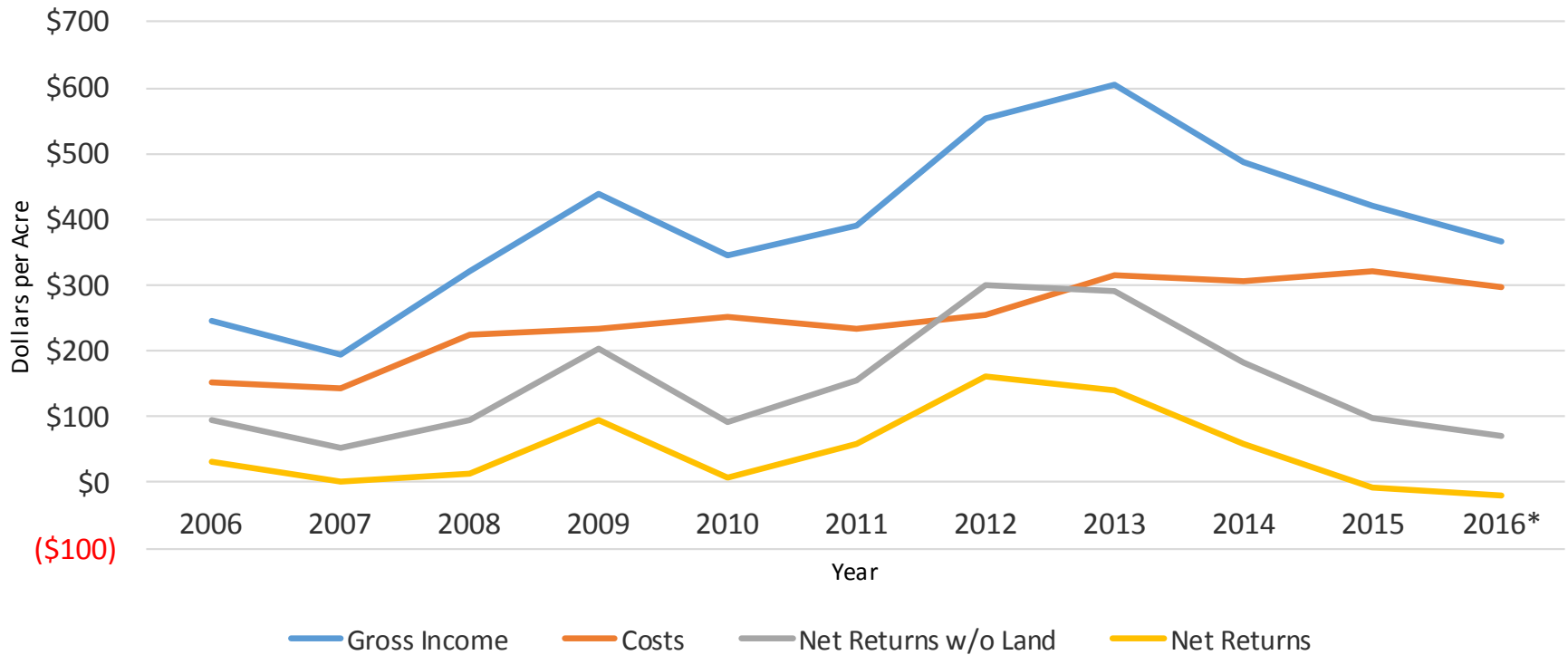
Cost are UT budget variable and fixed costs, does not include crop insurance, land or management cost

Net returns are returns to management & risk. Includes a land cost of 25% of gross income.

UT Budgets Per Acre Soybeans



Returns Per Acre Soybeans



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The Right Question

- The key question is NOT: What volume of inputs will make the highest possible yield?
- The right question is: What volume and combination of inputs will produce the most profitable yield?



Seed

- Seed Selection
 - Does the hybrid have traits that you truly need or will benefit from?
 - Is the hybrid suited for the soil type in the field that you intend to plant it?
 - How did hybrid perform in University & Company Trials. Field trials are performed across the state and likely to be on soil types that mirror your soil profile.
 - Seeding rates
- Non- GMO
 - Potential cost savings on seed.
 - Chemical bill will most likely be higher.
 - Yield potential



Fertilizer

- This is one of the most influential inputs to the crop's overall yield. However, it has to be managed so as to not over or under spend.
 - Example: A heavily fertilized field that produces a bumper crop could be less profitable than a slightly lower-yielding field that has a lower fertilizer bill.
 - Law of diminishing returns



Fertilizer

- Are applications based on a soil test?
 - Soil test to see where your nutrient & micronutrients levels are.
- Should I use variable rate fertilizer?
 - Will fertilizer savings/yield increase offset application cost?
- Could you apply less fertilizer and be more profitable on that field?
 - Fertilize for your field's realistic yield.
 - Higher net income per acre is more important than the highest yield.



Soil Sample
Testing

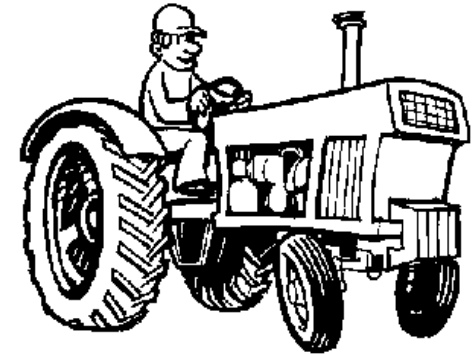
Herbicide, Insecticide, Fungicide

- Are you applying chemicals that may not be needed given the current growing conditions?
- Are you spraying for pests that have not reached threshold levels?
 - Scout fields for insects & disease
 - Apply if needed considering environmental & growing conditions of the crop
 - Spraying for stink bugs because the sprayer is already going across the field with an fungicide is generally a wasted application.



Machinery

- Fuel cost are lower, watch for movement.
 - Secure at least part of your needs now.
- Delay major purchases if possible
- Repairs & Maintenance
 - Used vs New Equipment
- Leasing
- Watch section 179 Depreciation
 - Useful tax management tool but purchase has to be for economic reasons.
 - Equipment depreciated out but still paying for it.
- Custom Hire



Insurance, Labor, & Land

- Insurance
 - Evaluate crop insurance for risk management
 - Incorporate in marketing plan
 - Evaluate equipment & liability insurance
 - Equipment list up to date, do I have the protection needed?
- Labor
 - Is everyone fully employed?
- Land
 - Keep good relationship with landowner.
 - Explore rental rates and or terms
 - Some cash rent and share rent have decreased.

Family Living

- IL FBFMA data
 - 1,350 farm families
 - Operator 56 years old
 - Family averaged 2.7 members
- Net Farm Income \$95,885 in 2014
 - \$10,017 decrease from 2013, **-\$167,032** from 2012
- Average Family living - \$88,936 in 2014
 - \$194 decrease from 2013, + \$3,924 from 2012
 - On the average a 3.4% yearly increase since 2005
- Net Nonfarm Income - \$39,676, + \$1,657



What to do in 2016?

- Diversify crop mix – crops, varieties, maturities
- Review all crop inputs.
 - Can I trim costs and not lower yields?
 - Can I become more efficient?
 - Can I manage inputs better?
 - Can I manage equipment better?
 - Can I manage technology better?
- Can I increase yields ?
- Can I increase market prices?
- Who is the risk taker and decision maker?



What to do in 2016?

- Evaluate cash flow & financial situation early.
 - If shortfall is estimated discuss alternatives with lender
- Delay major purchases if possible.
- What are alternatives for shortfalls?
 - Refinance term debt
 - Amortize carryover operating debt
 - Liquidate unproductive or excess assets or assets that can reduce debt and payments
 - Change in operation or production system
- Watch stress levels
- UT Extension Area Farm Management Specialist can assist you in developing a farm financial plan.



*In preparing for battle I have
always found that plans are
useless, but planning is
indispensable.*

Dwight D. Eisenhower