Collection of county yield data, how does NASS do it?

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The 2012 average corn and soybean yields for counties and districts in Iowa were released in late February 2013. This information is collected by USDA’s National Agricultural Statistics Service (NASS) each year using the December Agricultural Survey and County Agricultural Production Survey. Through the Ag Decision Maker website, we provide this data in Information Files A1-12 and A1-13, Historical Yields by County, which show county averages from 2003 through 2012. This information is helpful for seeing trends in yields over the past 10 years. Information File A1-14, Iowa Corn and Soybean Yields, also shows the 10-year average yield, and the year and yield results for the highest and lowest years for each county in the past 10 years. This information is helpful in developing and soybean budgets, cash-flow projections or other types of analysis for producers in which the actual production history is not available. The crop yields are reported in bushels per harvested acre; some programs such as Average Crop Revenue Election (ACRE) use bushels per planted acre.

NASS conducts the December Agricultural Survey (DAS) each year to establish state and national estimates of row crops such as corn and soybeans. The County Agricultural Production Survey is also conducted each year to collect data that are combined with the DAS data and used to establish the county level yields. Each year, a combined 15,000 randomly selected operators in Iowa are interviewed for these surveys. The operator reports the whole farm’s planted and harvested acreage, yield and production for corn, soybeans, and hay. They also are asked to report acres rented from someone else. Other crops such as wheat and oats are collected earlier in the year.

The data are collected using several methods: mail, telephone interview, personal interview, or the operator can even report electronically. Data collection begins in late fall and continues

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through mid-January. Trained enumerators or census takers collect the data. The same enumerators are used to collect data for NASS year-round. Strict guidelines are followed in all states to ensure comparable results on a national level.

Several steps are taken to verify the accuracy of the reports. The first step is a check for reasonableness, and any questionable results are double-checked with the operator. The results are then entered into a secure computer system and checked again for extreme yields and outliers in the data. At this point, the data are ready to be analyzed. NASS uses a system called Interactive Data Analysis System or IDAS. With this program, they can graphically look at all data that has been reported. It can be broken down by district and county at this point as well. During this phase, outliers are once again identified but by district and county. These are checked once more with the operator for accuracy.

The data are then summarized by district and county (or point estimates) for acreage planted and harvested, as well as yield. The summary indications are compared against “administrative data” from the Farm Service Agency (FSA) and Risk Management Agency (RMA) at the county level. Established estimates are reviewed by the NASS Agricultural Statistics Board in Washington, D.C. This board reviews Iowa estimates as well as other states to check for consistency and once again for accuracy. After this final review, the acreage and yield estimates are published and made available online.

Summary information is available on the Ag Decision Maker website. For other county estimates, including other crops, livestock and farm numbers, visit the NASS website for Iowa at: www.nass.usda.gov/Statistics_by_State/Iowa/index.asp.

Conflicts between landlord and tenant*

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For well over 700 years, the legal system in the common-law world has been oriented toward preventing the exploitation of land resources by tenants. Initially, that orientation was protective of the king with socage tenure assuring tenants the opportunity to lessen the value of the king’s land by waste or poor husbandry, but more recently landlords of all types have been the beneficiaries of that position of the law. That feature of the common law is in accord with the public interest inasmuch as the human family is dependent upon the productivity of tillable land for survival.

In recent years, higher land values and higher cash rents coupled with the economic stress of drought and other weather adversities have combined to underscore the importance of the law as one of the major ways of assuring that land tracts are not mismanaged for the short-term benefit of the tenant. Disputes over the removal of corn stalks (referred to as corn stover) from the rented land by a cash rent tenant represent just one of the numerous ways a tenant’s interest may be more in the short-term benefits rather than in the long-term productivity of the land. On the other hand, the law has continually demonstrated that the restraints imposed on tenants should not place a tenant in an economic straitjacket, either.

Waste or substandard husbandry
A tenant’s obligation to preserve the leased premises includes the duty to refrain from committing waste or engaging in substandard husbandry practices. That includes prohibiting the cutting down of trees or destruction of buildings or other

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structures on the land. Procedurally, the landlord’s remedy is to bring an action for waste. Courts have long recognized that significant reductions in productivity affect the landowner negatively and reduce the value of the land in question. A remedy is provided when that occurs or is threatened.

Under an agricultural lease, the law has long implied a covenant by the tenant, if it is not expressly so stated in the lease, to manage the land in accordance with the rules of good husbandry. The courts have tended to view favorably the generally accepted practices in the community and the duty of the courts is to sanction those who fall short of that standard but not to stand in the way of what is believed to be good practices as technologies and economic incentives change. As an example, plowing up areas that heretofore had not been the subject of cultivation without owner approval has been considered by a trial court as substandard husbandry. However, on appeal the appellate court held that, in the absence of an express provision in the lease limiting cultivation of the land in question, the best husbandry was viewed as tilling the acreage in question to grow corn. Courts have tended to view acts and practices that deplete the soil or otherwise diminish the owner’s reversionary interest in the property as objectionable including overgrazing of pasture lands, destroying fruit trees, removing manure from the premises instead of spreading it on the land, and overloading a barn intended to be used for the storage of hay with grain, meal and fertilizer, causing the collapse of the structure.

**Violating wetlands rules**

A 2012 appellate case in Iowa has provided a modern-day view of how the courts view the shortcomings of tenants. In that case, the tenant was one of four siblings who owned the land in question. The tenant in 2008 planted 8.7 acres of corn in two different areas on the farm that had been designated as wetlands by the United States Department of Agriculture under a Congressionally-passed program in the Food Security Act of 1985. The penalty was the refund of $152,093.38 in 2008 government farm program payments and the CCC loans he had received as well as $385 in conservation reserve program payments. Later, the penalties were rescinded for the three land owners who were not tenants. The owners then proceeded to terminate the lease with the tenant, which had until 2018 to run. The tenant restored the wetlands for the 2009 crop year.

The three landlords who were not tenants brought an action to terminate the lease. The trial court and appellate court agreed that the farm tenant cured the material breach under the lease, which allowed the multi-year lease to continue. The lease contained a good husbandry clause and imposed other stewardship duties on the tenant that were intended to protect the land. However, the tenant cured the “material breach” by restoring the wetland after one year and so avoided forfeiture of the lease (which, the court noted, involved a “minimal” cash rent of $85 per acre).

As the appellate court noted, there is a longstanding principle that “equity abhors a forfeiture.” Termination of the lease was not considered an equitable remedy by the courts.

In most years during March and April, weather uncertainty that influences new crop futures price focuses back on the Northern Hemisphere. That's where the majority of the world's corn and nearly one-half the soybeans are produced. Futures prices tend to become more volatile than those witnessed during the winter months.

Besides weather for early planting, attention will be on the USDA Prospective Planting Intentions report to be released on March 28, 2013. This will be the first glimpse of farmers' planting intentions drawn using scientific sampling methods. The final Acreage Report will not be released until June 28, 2013.

A rally in the new crop December corn futures price happens nearly every year in March and April. The December futures contract tends to move higher, and remains relatively high until at least mid-June when more is known about the planted acreage and yield prospects. New crop November soybean prices often rally in the late spring or early summer months. These higher new crop futures prices during the spring and early summer months are referred to as the Seasonals.

Determining your insurance bushels
Because most Corn Belt farmers take Revenue Protection (RP) crop insurance, they have the ability to tie pre-harvest marketing of their insurance bushels for delivery. That's because RP guarantees a farm's Actual Production History (APH) times the level of coverage elected (65%, 70%, 75%, 80% and 85%).

These insurance bushels are guaranteed at the higher of two prices: the projected price determined in the month of February for the average December corn futures and November soybean futures. These prices are used to determine the revenue guarantee for each insured crop as well as the premium to be paid in the fall. The key to RP is that if the harvest price increases (October average for those same futures contracts) the revenue guarantee reflects the higher of these two prices. That's a real advantage if there's a shortfall of contracted insurance bushels because that higher harvest price will be reflected in the final indemnity payment.

Look at the line graph below that features 12 years (2001 to 2012) of historical corn price data. The darker colored line is the projected price and the lighter colored line is the harvest price. Only five of those 12 years, and in each of the last three years, is the harvest price higher than the projected price.

Overlaying these lines are diamonds with prices representing the December corn futures contract high each of those 12 years from March until September. This period of time is referred to as the spring/summer high price or the seasonal highs. Note that for all 12 years the December corn...
futures price high was above the projected price. Only the years of 2006 and 2010 did this high not exceed the harvest price.

The conclusion might be that new crop December futures price highs in the seven-month period of March to September provides an opportunity to make some sales of a portion of these insurance bushels. The highest December corn futures prices on the chart occurred on June 27, 2008, August 29, 2011, and August 10, 2012. In most years prior to 2008, this seasonal high for corn occurred in the months from March until June.

**New crop pricing opportunities**

Remember, with the use of Revenue Protection (RP) crop insurance both yield times price or revenue is guaranteed. These insurance bushels are guaranteed at the higher of two different futures price: the projected price or the harvest price. Combine this understanding of RP annually with the sale of guaranteed insurance bushels after March 1 and before harvest. March 1 is the date that projected prices are known, thus a pre-harvest sales objective could be established.

Since most years, new crop December corn and November soybean futures prices tend to rally in the spring and summer months, the ability exists with RP crop insurance to sell for delivery all or a portion of your insurance bushels. The goal in 2013 might be to sell some guaranteed bushels when futures prices are at least above these projected prices, which are $5.65/bu. for corn and $12.87/bu. for soybeans.

For corn and soybeans in 2013, many missed the opportunity to sell new crop bushels last August or September at high prices. A new goal might now be to sell a portion of your guaranteed insurance bushels in the spring and summer months. Cash sales can be made using forward cash or hedge-to-arrive (HTA) contracts. Both contracts require the delivery of a specific quality and quantity of bushels. The forward cash contract fixes both the futures price and the basis when the contract is initiated, thus the cash price for delivered bushels is known.

However the HTA contract leaves the basis open, but fixes the futures price. If a farmer thinks that the basis might improve prior to delivery, then an HTA contract is preferred. The farmer will still want to pay attention to the basis being offered for that delivery period. The basis should be set well in advance of delivery of these bushels. This involves discussing with your grain merchandiser plans for setting that basis on HTA contracts and the specifics for delivery of those bushels and cash settlement.

The line graph below features those same 12 years of historical soybean data. The darker colored line is the projected price each year since 2001. The lighter colored line is the harvest price for those same years. In six of those 12 years, and in three of the past five years, the harvest price is actually higher than the projected price.

Diamonds with prices overlay these lines and represent the November soybean futures contract high each of those 12 years from March until September. Note that for all 12 years the November soybean
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futures price high was above the projected price. Only in the years of 2003 and 2010 did this seasonal high not exceed the harvest price.

**Conclusion**
The decision to take Revenue Protection (RP) crop insurance in 2013 now provides the ability to pre-harvest sell for delivery a portion of your guaranteed new crop corn or soybean bushels. Selling these insurance bushels between March and September is often complimented by the seasonal highs occurring in those months. A goal in 2013 might be to sell some of these guaranteed bushels when futures prices are above the projected prices, which are $5.65/bu. for corn and $12.87/bu for soybeans.

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**Internet Updates**
The following decision tool has been updated on www.extension.iastate.edu/agdm.

**Financing Stages for Start-up Businesses** – C5-91 (2 pages)

**Types and Sources of Financing for Start-up Businesses** – C5-92 (4 pages)

**Current Profitability**
The following files and tools have been updated on www.extension.iastate.edu/agdm/info/outlook.html.

**Corn Profitability** – A1-85

**Soybean Profitability** – A1-86

**Iowa Cash Corn and Soybean Prices** – A2-11

**Season Average Price Calculator** – A2-15

**Ethanol Profitability** – D1-10

**Biodiesel Profitability** – D1-15

**Returns for Farrow-to-Finish** – B1-30

**Returns for Weaned Pigs** – B1-33

**Returns for Steer Calves** – B1-35

**Returns for Yearling Steers** – B1-35