Ag Decision Maker

A Business Newsletter for Agriculture

Vol. 14, No. 9 www.extension.iastate.edu/agdm July 2010

Leasing issues and rental rates for 2011

by Kelvin Leibold, extension farm management specialist, 641-648-4850, kleibold@iastate.edu

Last month in Ag Decision Maker one article reviewed the 2010 leasing rental rates (http://www.extension.iastate.edu/agdm/articles/edwards/EdwJune10.html). The article provided highlights from *Information File C2-10,* **2010 Iowa Cash Rental Rate Survey** (http://www.extension.iastate.edu/agdm/wholefarm/html/c2-20.html), which is available on the Ag Decision Maker website or at county extension offices. Where might rental rates be headed this coming year and are there any new issues to look at?

When landlords and tenants establish rental rates they often look at: what others are paying, average crop yields, Corn Suitability Rating Index, share of the gross crop value, the return on investment, percentage of the crop and the tenant's residual. In recent years the tenant's residual has received a lot of scrutiny. For more information on the methods listed, read *Information File C2-20,* **Computing a Cropland Cash Rental Rate** (http://www.extension.iastate.edu/agdm/wholefarm/html/c2-20.html) on calculating rental rates. A decision tool for analyzing the different methods is also available.

Tenant's residual method

When people use the tenant's residual method they need to look at the potential range of outcomes. The volatility in yields has increased as weather patterns have become more variable. The volatility in prices has increased with exports, new uses for commodities, increased production in other countries and more world trade. Government programs have helped to stabilize some of this volatility but not to the extent that we saw in previous Farm Bills.

Costs of production

Two producers with similar costs of production can have significantly different gross revenues due to marketing, crop insurance and government payments. For recent trends in grain prices you can refer to *Information File A2-11,* **Cash Corn and Soybean Prices** (http://www.extension.iastate.edu/agdm/crops/pdf/a2-11.pdf) which gives monthly prices for Iowa. The **Season Average Price Calculator** (http://www.extension.iastate.edu/agdm/crops/html/a2-15.html) is another resource. The associated

continued on page 2

Handbook updates

For those of you subscribing to the handbook, the following updates are included.

Change in Corn Prices by Two Week Period, 1999-2009 -- A2-17 (1 page)

Change in Soybean Prices by Two Week Period, 1999-2009 -- A2-18 (1 page)

Historic Hog and Lamb Prices -- B2-10 (4 pages)

Historic Cattle Prices -- B2-12 (4 pages)

Please add these files to your handbook and remove the out-of-date material.

continued on page 6

Inside . . .

IOWA STATE UNIVERSITY
University Extension

Ag Decision Maker is compiled by Don Hofstrand, dhof@iastate.edu extension value-added specialist and co-director of the Agricultural Marketing Resource Center

Leasing issues and rental rates for 2011, continued from page 1

Decision Tool allows you to estimate future corn prices for the current crop year; just click on the calculator in the upper right corner of the screen to download the interactive spreadsheet. When adjusted for basis the **CME Commodity Prices** (http://www.cmegroup.com/trading/commodities) will give you an idea of what the market thinks future prices will be. At the CARD website, **Daily Corn and Soybean Basis Maps for Iowa and the Midwest** (http://www.card.iastate.edu/ag_risk_tools/basis_maps/), you can look at the current basis or go back to previous dates to see how it changes over time.

Crop production budgets

Information File A1-20, **Estimated Costs of Crop Production** (http://www.extension.iastate.edu/agdm/crops/html/a1-20.html) takes you to the various crop production budgets. These are the 2010 budgets but will be updated to estimate what 2011 budgets will be in the coming months. If you want to enter your own data and look at the combined economics of crop rotations go to *Decision Tool*, **Crop Rotation Summary** (http://www.extension.iastate.edu/agdm/crops/xls/a1-20croprotation.xls). In general seed and machinery costs still seem to be increasing. Fertilizer and drying costs will be tied to changes in energy costs. At this point, I would estimate that we will see small increases in the overall costs of production.

With the weather variability we will see significant differences between counties and even within counties when it comes to yields. Soil types, drainage and weather all impact yields.

Outlook for 2011

When you look at the CME Group grain prices for 2011 new crops it doesn't seem to indicate a lot of volatility. Corn has a slightly positive carry and soybeans have a negative carry. At this point it looks like the costs of production will increase only slightly. The Farm Bill safety net, Average Crop Revenue Election (ACRE), looks to be continuing its downward trend of providing lower levels of revenue coverage. This program has fewer than 20 percent of the producers even participating. Next month's Ag Decision Maker newsletter will have an article detailing reasons for the lack of sign-up in the ACRE program.

Legal issues

One common topic that comes up frequently deals with the issue of terminating leases. The Center for Agricultural Law and Taxation's (CALT) leasing publication, **Iowa Farm Leases - Legal, Economic, and Tax Considerations** (http://www.calt.iastate.edu/briefs/CALTLegalBrief-LeaseLegalIssues.pdf) goes into detail on page 6 discussing the ways to terminate a lease. The article also addresses the issues of material participation, USDA payments, landlord liens and many other topics.

The CALT website also provides a list of **New Iowa Legislation Impacting Rural Landowners and Agricultural Businesses (Effective July 1, 2010)** (http://www.calt.iastate.edu/PDF/2010%20Iowa%20Legislation.pdf). There are a couple of new legal issues that may be of interest. They deal with work on drainage districts and who owns the above ground stover and residue.

House File 2458 (http://coolice.legis.state.ia.us/CoolICE/default.asp?Category=BillInfo&Service=Billbook&ga=83&menu=text&hbill=HF2458) also addresses the issue of mowing road ditches. The mowing of ditches is banned during the song bird nesting season with several exceptions. If your lease requires the ditches to be mowed you might want to make sure you are in compliance with the new law.

The resources listed above and more are available on the Ag Decision Maker 2010 Leasing page (http://www.extension.iastate.edu/agdm/info/meetings_leasing.html). Also included on this page is information on 2010 Iowa State University Extension Leasing Meetings.

2009 Farm and Rural Life Poll: Value-added agriculture*

by J. Gordon Arbuckle, Jr., extension sociologist; Paul Lasley, extension sociologist; Peter Korsching, professor; and Chris Kast, research assistant

The Iowa Farm and Rural Life Poll is an annual survey that collects and disseminates information on issues of importance to rural communities across Iowa and the Midwest. Conducted every year since its establishment in 1982, the Farm Poll is the longest-running survey of its kind in the nation. This article highlights information from the 2009 survey on farm policy and commodity production.

Value-added agriculture

Value-added agriculture is also viewed as a means toward economic development in rural areas. Defined as the processing or marketing of an agricultural product in a way that allows producers to earn a greater portion of their products' commercial value, value-added agriculture encompasses a broad range of activities that can allow farmers to turn innovative ideas and management expertise into higher returns from their farm operations. The Farm Poll explored current involvement in value-added agricultural activities and barriers to participation in such initiatives.

Nine percent of Farm Poll respondents reported that they were involved in a value-added agriculture business. Among those who indicated that they were participating in a value-added enterprise, 41 percent were involved in either ethanol or biodiesel production. Following in frequency, at 30 percent, were meat-related ventures, primarily the direct marketing of beef, pork or other meats. Production of organic, specialty or identity-preserved grains was cited by 18 percent of value-added entrepreneurs, and seven percent produced and marketed fruits or vegetables. Other value-added activities included production of cheese, honey and ornamental plants.

To develop a better understanding of why so few Iowa farmers participate in value-added agriculture ventures, we worked with the Iowa State University Value Added Agriculture Program to develop questions regarding challenges to farmer involvement in value-added initiatives and potential barriers to expansion beyond traditional agricultural production activities.

Perceived risk appears to be a major impediment to participation in value-added agricultural enterprises. Seventy percent of participants agreed that many farmers would rather take an off-farm job rather than start a value-added enterprise, and 67 percent agreed that many farmers just don't want to start something new (Table 1). Sixty-six percent of participants reported that markets for products other than unprocessed major commodities are limited in their area, and 62 percent agreed that demand for alternative agricultural products is uncertain. The high rates of agreement on these four items likely reflect an aversion to risk. Starting a new business can involve much more financial risk than taking an off-farm job with an established employer. Especially in cases where markets for products may not be well-developed or accessible, such considerations may play an important role in reluctance to get involved in a new, untested venture.

Lack of business experience and marketing skills also seem to act as barriers to the development of value-added agricultural activities. Sixty percent of participants agreed that many farmers would feel uncomfortable trying to market products directly to customers (Table 1). Fifty-eight percent concurred that many farmers do not have sufficient business development experience, and 50 percent agreed that farmers are just not aware of opportunities to start value-added businesses.

Survey information

Iowa State University Extension, the Iowa Agriculture and Home Economics Experiment Station, and the Iowa Department of Agriculture and Land Stewardship are all partners in the Farm Poll effort. The information gathered through the Farm Poll is used to inform the development and improvement of research and extension programs and is used by local, state and national leaders in their decision-making processes. We thank the many farmers who responded to this year's survey and appreciate their continued participation in the Farm Poll.

Who participates?

The 2009 Farm Poll questionnaires were mailed in January and February to a statewide panel of 2,201 farm operators. Usable surveys were received from 1,268 farmers, resulting in a 58 percent response rate. On average, Farm Poll participants were 64 years old,

continued on page 4

2009 Farm and Rural Life Poll: Value-added agriculture, continued from page 3*

and had been farming for 39 years. Fifty percent of farmers reported that farm income made up more than half of their overall 2008 household income, and an additional 20 percent earned between 26 and 50 percent of their household income from farming. Copies of this or any other year's reports are available from your county Extension office, the Extension Online Store (www.extension.iastate.edu/store), Extension Sociology (www.soc.iastate.edu/extension/farmpoll.html), or from the authors.

Table 1. Value-added agricultural businesses

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
	—Percentage—				
Many farmers would rather take an off-farm job than start a value-added enterprise	0	5	25	63	7
Many farmers just don't want to start something new	1	9	23	62	5
Markets for products other than unprocessed major commodities are limited in my area	0	7	27	58	8
Demand for alternative agricultural products is uncertain	0	7	32	57	5
Many farmers would feel uncomfortable trying to market agricultural products directly to customers	0	10	30	56	4
Many farmers don't have sufficient business development experience to start a value-added business	1	11	30	52	6
Start-up costs for value-added businesses are too high for most farmers	0	7	41	47	5
Farmers are not aware of opportunities to start value-added businesses	1	9	40	47	3
Farmers are too busy with their farm operations to get involved in value-added businesses	0	13	36	45	6
By providing a safety net for farmers, commodity programs discourage participation in value-added businesses	0	13	47	36	4
Banks are reluctant to provide financing for non-traditional agricultural businesses	0	7	62	27	4

**Reprinted with permission from the Iowa Farm and Rural Life Poll, 2009 Summary Report, PM 2093. Renea Miller provided valuable layout assistance to the questionnaire and this report. The Iowa Department of Land Stewardship, Division of Statistics, assisted in the data collection.*

Economics of tile drainage

by Don Hofstrand, extension value-added specialist, co-director AgMRC, 641-423-0844, dhof@iastate.edu

There are more than six million acres of cropland in Iowa where wetness limits productivity. Slightly more than half of the 375 different soils series mapped in Iowa have problems with excess water. The drainage of farmland is obviously important for improving the productivity of Iowa agriculture. Based on the large number of acres susceptible to excessive wetness and the yield response from removing this wetness, farmers and landowners are becoming increasingly interested in drainage.

The two major methods of farmland drainage are surface drainage where standing water is removed using surface ditches and subsurface drainage where excess water is removed through a system of underground drainage tiles. This article and the associated *AgDM Information File C2-90* deal only with subsurface tile drainage.

The major soil association areas of Iowa are shown in Figure 1. Although artificial drainage can be utilized

continued on page 5

Economics of tile drainage, continued from page 4

anywhere in the state, it is most prevalent in the "prairie-pothole" (Des Moines Lobe) region of the Clarion-Nicollet-Webster soil association of central and northern Iowa.

Designing a subsurface drainage system[1/]

The purpose of subsurface drainage is to lower the water table in the soil. The water table is the level at which the soil is entirely saturated with water. The excess water must be removed to a level below the ground surface where it will not interfere with plant root growth and development. Root growth requires air to be present in the soil. Both water and air need to be present in the spaces between the soil particles, often in equal proportions. If water fills all of these spaces (saturated), there is no room for air.

Tile drainage should be designed so the water table between tile lines can be lowered within 24 hours after a rain to a level that will not cause crop injury. Generally, most field crops are not injured if the water table is lowered to at least six inches below the ground surface in the first 24 hours after a rain. During the second day after a rain the water table should be lowered to approximately one foot and on the third day to 1.5 feet below the ground surface.

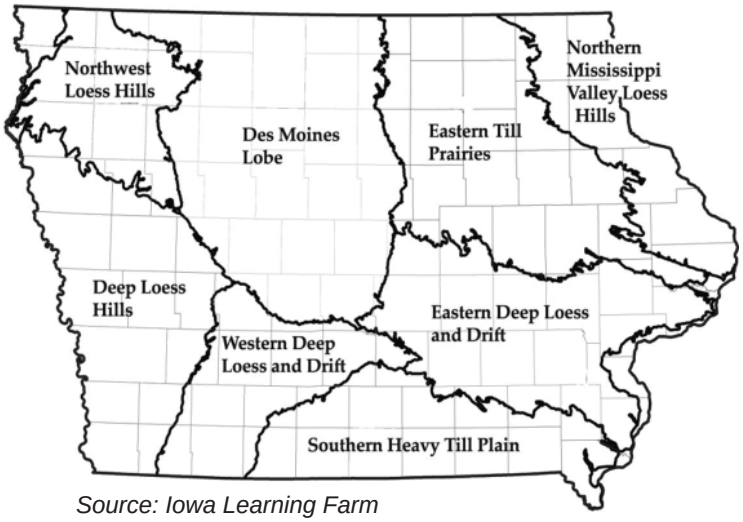
Investment analysis

The major reason for installing subsurface drainage is to improve the productivity of the farmland. Higher yields translate into more returns. This is especially true in recent years due to higher grain prices. So the investment decision is based on whether the higher crop returns will justify the investment in subsurface drainage. A secondary benefit is that fields will dry out quicker, allowing planting and harvesting to be completed earlier in the spring and fall. It also provides a larger window of time for a farmer to plant and harvest the crop allowing it to be done in a more efficient manner in terms of time and money. This is especially advantageous for farmers who have large acreages to cover.

Specific advantages of tile drainage are:

1. More consistent yields
   - Allows for more efficient use of resources
   - Reduces financial risk
2. Earlier and more timely planting
3. Improved harvesting conditions
4. Less wear and tear on equipment

Figure 1. Major soil association areas of Iowa.



Source: Iowa Learning Farm

5. Less power required for field operations
6. Better plant stand
7. Less plant stress
8. Fewer plant diseases
9. Less soil compaction

Another major advantage of tile drainage is the increase in sale value of the land. If the land will be sold in the future, the advantages listed above will be capitalized into the value of the land.

Subsurface drainage is a long-term investment. The investment is made up-front but the benefits are spread over many future years. So the investment decision should be made with the time-lag in mind.

The most difficult part of computing a tile investment analysis is estimating the yield response from the improved drainage. The size of the expected yield improvement dramatically impacts the economic feasibility of installing tile drainage, as shown in the example below.

Example:
A 10 bushel per acre yield response from corn and a 4 bushel per acre yield response from soybeans will provide an average annual return of $35 for corn at a price of $3.50 ($3.50 x 10 bu. = $35) and $36 for soybeans at a price of $9 ($9 x 4 bu. = $36). If the yield responses are 20 bushels for corn and 8 bushels for soybeans, the returns are double.

There are additional annual costs associated with these higher yield levels. For example, more fertilizer may

continued on page 6

Economics of tile drainage, continued from page 5

be required to support these higher yields. Also, more hauling, drying and storage is required. In addition, there may be costs associated with the maintenance of the drainage system. So these additional costs need to be deducted from the returns listed above to compute a "net" return per year from installing drainage.

Estimating future returns

In the section above, we assume that the annual income stream will stay constant throughout the entire life of the tile. However, this may not be the case. Corn and soybean yields have increased over recent decades. Corn yields have increased by 2.4 percent and soybean yields by 1.8 percent per year since 1980. Most experts expect this trend to continue, if not increase. The impact of trend yield increases over the life of the tile drainage can be substantial. The yield response to tile drainage can be estimated by comparing the area to be drained to portions of the field with similar soil types that are already adequately drained or don't need drainage.

Information File C2-90, **Understanding the Economics of Tile Drainage,** provides more detail on analyzing the current and future returns from tiled farmland. A *Decision Tool* is also available for estimating the returns to tiled land for a landowner and/or tenant.

Additional information available on the drainage of Iowa farmland

Iowa Drainage Guide (a $25 purchase) includes 1) Iowa drainage laws, 2) drainage guidelines for Iowa soils, 3) subsurface drainage, 4) surface drainage, 5) open channels, 6) pump drainage. www.extension.iastate.edu/store/ItemDetail.aspx?ProductID=6064&SeriesCode=&CategoryID=&Keyword=SR%2013

Iowa Drainage Law Manual www.ctre.iastate.edu/pubs/drainage_law/index.htm

[1/] Iowa Drainage Guide, Iowa State University Extension, Special Report 13, revised June 2008.

Updates, continued from page 1

Internet Updates

The following updates have been added on www.extension.iastate.edu/agdm.

Grain Storage Alternatives: An Economic Comparison -- A2-35 (7 pages)

Understanding the Economics of Tiling -- C2-90 (7 pages)

Building Your Brand with Brand Line Extensions -- C5-52 (2 pages)

Brand Leveraging -- C5-53 (2 pages)

Decision Tools and Current Profitability

The following tools have been added or updated on www.extension.iastate.edu/agdm.

Hay Storage Cost Comparison -- A1-15

Farmland Tile Drainage Investment -- C2-90

Season Average Price Calculator -- A2-15

Corn Profitability -- A1-85

Soybean Profitability -- A1-86

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