

# Business point

## Yields and costs both increasing

Data from Illinois show productive 2008 returns.



**Editor's note:** Kent Vickre and Dwight Raab write a tax and finance column for each issue of Pioneer GrowingPoint® magazine. Vickre is state coordinator of the Iowa Farm Business Association. Raab is state coordinator of Illinois Farm Business Farm Management. They address issues that influence agribusiness success.



Illinois 2008 farm analysis data show growers collected higher yields while bearing higher input costs. Though both grain prices and the costs of inputs have moderated, these numbers may offer a reasonable benchmark for growers in Illinois, nearby states and, to a lesser degree, other states.

Here are the highlights of the 2008 analysis.

In 2008, corn yields were slightly above the excellent yields of 2007, according to reports from farms that kept records through Illinois Farm Business Farm Management (FBFM). The average corn yield on the 2,572 farms reporting was 194 bushels per acre. Corn yields were 5 bushels per acre higher in 2008 compared to 2007.

Soybean yields averaged 51 bushels per acre, 1 bushel higher than in 2007. Corn and soybean yields were generally highest in the central and western parts of the state. Too much rainfall lowered yields in certain parts of the state, including east-central Illinois. The average corn yield was the highest on record. The average soybean yield tied for the third highest.

Crop returns averaged \$749 per tillable acre, an all-time high. This was \$92 per acre higher than in 2007.

### Costs continue to rise

On the downside, per-acre fertilizer, chemical and seed

costs rose compared to 2007. Costs were significantly higher than five years earlier.

Crop costs on reporting farms averaged \$183.17 per acre in 2008 compared to \$144.87 in 2007.

Fertilizer prices increased 36 percent, pesticides rose 20 percent and seed was 18 percent higher. Fertilizer costs have increased 95 percent since 2004, while pesticides are up 20 percent and seed has risen 67 percent in that time.

Fuel and oil costs averaged \$26.60 in 2008 compared to \$21.03 in 2007 and were more than double the \$12.80 of 2004. Some of these costs may continue to increase in 2009.

In addition, spending for machinery and equipment rose considerably over the year before. Expenditures increased 44 percent in 2008 compared to 2007, averaging \$90,381 per farm (\$86 per tillable acre). Machinery purchases in 2006 and 2005 averaged \$45 per tillable acre, but jumped to \$62 per tillable acre in 2007.

### Costs to grow corn, soybeans

All areas of the state saw total economic costs per acre to produce corn and soybeans rise in 2008 from 2007 levels. The main factors were higher fertilizer, seed, machinery and insurance costs.

A sample of pure grain farms in the state illustrates that the total economic costs per bushel of corn produced were \$3.34 (again, average yields were 194 bushels per acre). The total costs per bushel of soybeans were \$9.35 (average yields, 51 bushels per acre). This compares with costs per bushel of \$2.85 and \$8.16 for corn and soybeans, respectively, in 2007.

Even with high yields, this was the highest cost per bushel to grow corn since 1998. Last year's costs to grow soybeans and corn were above the five-year and 10-year averages, representing the highest level per bushel for

both commodities since 1988.

The variation in yields and costs in the recent years makes it important to analyze these costs over more than one year. The 2004-2008 five-year average costs on these farms are \$2.87 per bushel for corn and \$7.49 per bushel for soybeans.

### Livestock return dip

FBFM records show return above feed cost for all livestock enterprises fell from the previous year. Returns for all five livestock enterprises in 2008 were below the five-year average.

All livestock enterprises experienced significantly higher feed costs in 2008. Higher feed costs were the main factor for lower hog returns. Returns for farrow-to-finish hog producers were estimated at significantly below the breakeven level in 2008. Dairy producers experienced lower returns even with higher milk prices.

Returns above feed per cow were \$1,775 in 2008 compared to \$2,360 in 2007. Prices paid in 2008 for replacement cattle were approximately \$6 below the year before. Slaughter cattle prices received were about \$12 per hundredweight lower than prices paid for replacement cattle. Returns above feed per cow decreased for beef cow enterprises due to higher feed costs. The negative returns above feed cost were the lowest for any year during the last five years.

### What's in the cards?

Current grain prices for fall delivery of the 2009 crop have moderated. With average or above-average yields, farm earnings for 2009 aren't likely to reach 2008 or 2007 levels. However, some costs have moderated as well. Fertilizer is a good example.

With any significant drop in grain prices and/or yields, incomes might be substantially lower than current projections. Better incomes in 2007 and 2008 have led to increased cash rents, which will cut into operator returns.

Incomes on livestock farms will continue to face the challenge of high feed costs. Producers need to plan accordingly for 2009 and monitor actual cash flows against projections. Risk

### Corn "key" production figures\*

	2007		2006		2005		2004		2003		2002	
	IA	IL	IA	IL	IA	IL	IA	IL	IA	IL	IA	IL
Soil Fertility	78	89	70	80	56	77	55	66	49	56	45	54
Pesticides	27	39	28	39	29	42	30	38	32	35	33	33
Seed	54	54	47	46	44	43	39	39	37	36	35	34
Drying & Storage	9	15	12	11	10	8	14	10	8	9	3	13
Mach. Repair, Fuel & Hire	52	49	45	42	45	39	39	37	35	32	28	32
Economic Machinery Depreciation	29	23	27	21	26	20	24	19	23	18	18	18
<b>TOTAL ECONOMIC COST</b>	<b>501</b>	<b>542</b>	<b>451</b>	<b>488</b>	<b>419</b>	<b>458</b>	<b>404</b>	<b>425</b>	<b>381</b>	<b>395</b>	<b>317</b>	<b>388</b>
<b>AVERAGE YIELD</b>	<b>171</b>	<b>190</b>	<b>167</b>	<b>174</b>	<b>175</b>	<b>150</b>	<b>187</b>	<b>184</b>	<b>161</b>	<b>174</b>	<b>142</b>	<b>145</b>

### Beans "key" production figures\*

	2007		2006		2005		2004		2003		2002	
	IA	IL	IA	IL	IA	IL	IA	IL	IA	IL	IA	IL
Soil Fertility	9	28	8	25	7	24	6	21	5	20	5	19
Pesticides	24	25	19	25	23	31	19	28	24	29	21	30
Seed	32	37	29	33	29	29	24	27	23	27	23	24
Drying & Storage	2	5	3	3	1	5	1	6	1	5	1	4
Mach. Repair, Fuel & Hire	50	43	42	37	42	34	37	32	32	28	28	28
Economic Machinery Depreciation	28	20	26	18	25	17	23	17	22	16	18	17
<b>TOTAL ECONOMIC COST</b>	<b>386</b>	<b>416</b>	<b>338</b>	<b>375</b>	<b>332</b>	<b>351</b>	<b>308</b>	<b>333</b>	<b>293</b>	<b>317</b>	<b>242</b>	<b>318</b>
<b>AVERAGE YIELD</b>	<b>55</b>	<b>51</b>	<b>54</b>	<b>53</b>	<b>54</b>	<b>52</b>	<b>50</b>	<b>54</b>	<b>35</b>	<b>38</b>	<b>46</b>	<b>48</b>


\* All figures in dollars per acre

management tools may be more important than ever because of the large investments required to plant and grow a crop.

### Good records pay off

The authors would like to acknowledge the data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes.

FBFM, which consists of 5,500 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. The FBFM field staff provides on-farm counsel with computerized recordkeeping, farm financial management, business entity planning and income tax management.

For more information, contact the FBFM office at the University of Illinois Department of Agricultural and Consumer Economics, 217-333-5511, or visit the FBFM website at [www.fbfm.org](http://www.fbfm.org). 

2008 "projected" data is as of April 1, 2009. Final 2008 comparative data available at [www.fbfm.org](http://www.fbfm.org). Iowa data is available at [www.iowafarmbusiness.org](http://www.iowafarmbusiness.org)

Illinois changed to economic depreciation in 2003, with most machinery calculated at 10 years, 125 percent declining balance. 2002 was tax depreciation. Iowa Economic depreciation is calculated at 10 percent per year with 10 percent salvage.

Total cost includes non-cash "average" equity charge on asset values and "average" unpaid labor and management charge.

The 2008 data was not included in article when originally published, below is the complete data table.

<b>CORN</b>														
<b>“KEY” PRODUCTION FIGURES (1)</b>														
	<b>2008</b>		<b>2007</b>		<b>2006</b>		<b>2005</b>		<b>2004</b>		<b>2003</b>		<b>2002</b>	
	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>
Soil Fertility	110	124	78	89	70	80	56	77	55	66	49	56	45	54
Pesticides	30	46	27	39	28	39	29	42	30	38	32	35	33	33
Seed	67	67	54	54	47	46	44	43	39	39	37	36	35	34
Drying & Storage	22	30	9	15	12	11	10	8	14	10	8	9	3	13
Mach. Repair,Fuel & Hire	67	52	52	49	45	42	45	39	39	37	35	32	28	32
Economic Machinery Depreciation (2)	35	29	29	23	27	21	26	20	24	19	23	18	18	18
<b>TOTAL ECONOMIC COST (3)</b>	<b>625</b>	<b>655</b>	<b>501</b>	<b>542</b>	<b>451</b>	<b>488</b>	<b>419</b>	<b>458</b>	<b>404</b>	<b>425</b>	<b>381</b>	<b>395</b>	<b>317</b>	<b>388</b>
<b>AVERAGE YIELD</b>	<b>179</b>	<b>199</b>	<b>171</b>	<b>190</b>	<b>167</b>	<b>174</b>	<b>175</b>	<b>150</b>	<b>187</b>	<b>184</b>	<b>161</b>	<b>174</b>	<b>142</b>	<b>145</b>

<b>BEANS</b>														
<b>“KEY” PRODUCTION FIGURES (1)</b>														
	<b>2008</b>		<b>2007</b>		<b>2006</b>		<b>2005</b>		<b>2004</b>		<b>2003</b>		<b>2002</b>	
	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>	<b>IA</b>	<b>IL</b>
Soil Fertility	16	42	9	28	8	25	7	24	6	21	5	20	5	19
Pesticides	33	28	24	25	19	25	23	31	19	28	24	29	21	30
Seed	35	43	32	37	29	33	29	29	24	27	23	27	23	24
Drying & Storage	2	6	2	5	3	3	1	5	1	6	1	5	1	4
Mach. Repair,Fuel & Hire	62	45	50	43	42	37	42	34	37	32	32	28	28	28
Economic Machinery Depreciation (2)	34	26	28	20	26	18	25	17	23	17	22	16	18	17
<b>TOTAL ECONOMIC COST (3)</b>	<b>457</b>	<b>485</b>	<b>386</b>	<b>416</b>	<b>338</b>	<b>375</b>	<b>332</b>	<b>351</b>	<b>308</b>	<b>333</b>	<b>293</b>	<b>317</b>	<b>242</b>	<b>318</b>
<b>AVERAGE YIELD</b>	<b>51</b>	<b>54</b>	<b>55</b>	<b>51</b>	<b>54</b>	<b>53</b>	<b>54</b>	<b>52</b>	<b>50</b>	<b>54</b>	<b>35</b>	<b>38</b>	<b>46</b>	<b>48</b>