
STATE OF INDIANA

DEPARTMENT OF LOCAL GOVERNMENT
FINANCE



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**REFERENCE
MATERIALS
FOR VALUING
AGRICULTURAL
LAND FOR
MARCH 1, 2010**

BASE RATE \$1,400

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**General Notes for the Agricultural Land Market
Value in Use for March 1, 2010 Rate of \$1,400**

December, 2009

History:

The Real Property Assessment Guidelines contain a section on valuing agricultural land based on its value in use. A summary of our calculations can be found in Chapter 2, Page 100 of these guidelines, in Table 2-18. For the 2002 reassessment, the base rate for agricultural land calculated to be \$1,050. Pursuant to 50 IAC 21-6-1(a), the department issued the annual rate for 3/1/05 to be \$880. In the 2005 legislative session, SEA 327 was passed. This bill contained a non-code provision that set the base rate for agricultural land for both March 1, 2005 and March 1, 2006 at \$880. SEA 327 also contained language for March 1, 2007 which instructed the Department of Local Government Finance to adjust our methodology from a four year rolling average to a six year rolling average. The base rate for March 1, 2007 was calculated to be \$1,140 per acre. The base rate for March 1, 2008 was updated by removing 1999 data and adding 2005 data to the six year average which resulted in a base rate of \$1,200. The base rate for March 1, 2009 was updated by removing 2000 data and adding 2006 data to the six year average which resulted in a base rate of \$1,250.

Table 2-18 – Years:

For March 1, 2010, the six years used were: 2002, 2003, 2004, 2005, 2006, and 2007.

Table 2-18 – Net Income from Cash Rents:

Since agricultural land in Indiana is nearly evenly divided between cash rent and owner-occupied production, our agency used an average of both types of income in our calculation.

The data for cash rents came from three Purdue Agricultural Economics Reports (PAER). For the 2002 & 2003 rents, go to Table 2 of Page 3 of the August of 2003 report. For the 2004 & 2005 rents, go to Table 2 of Page 3 of the August of 2005 report. For the 2006 & 2007 rents, go to Table 2 of Page 3 of the August of 2007 report. From these tables, we used the statewide averages for average soil.

There is also an adjustment to these amounts to reduce the rents for property taxes paid on the land. This adjustment was based on a study conducted by the Department of Local Government Finance.

Table 2-18 – Net Income from Operating:

This income represents the profits from the owner-occupied production of crops on agricultural land.

The foundation for the calculations that our agency adopted comes from Table 1 of the June 24, 1999 Doster/Huie report.

Doster/Huie Report – Table 1-Years:

This report used the years of 1996, 1997, 1998, & 1999. The year of 1999 was removed from our 2002 calculations since our calculations were based on January 1, 1999. Information for 1995 was obtained and added to our calculations. (Also note the date of June 24, 1999 for the report which means that six months of data had been estimated.)

Doster/Huie Report – Table 1-Yields:

The yields in this report were obtained from the Indiana Agricultural Statistics Service (IASS) for both corn and soybeans. The IASS publishes these statistics on an annual basis. Yield information for these four years can be found in the 1999-2000 publication for corn on page 31 in the Final Yield per Acre column of the Crop Summary section and on page 32 for soybeans.

Doster/Huie Report – Table 1-Prices:

The prices used in this report were for the month of November. They can be found in IASS publications for that time period. Note: Our agency made an adjustment to this part of the calculation because the majority of the grain harvested in Indiana is not sold in November but throughout the year. This adjustment will be discussed later.

Doster/Huie Report – Table 1-Sales:

Yields for each type of crop (corn/soybeans) multiplied by the Price per Bushel for each type of crop equals Sales.

Doster/Huie Report – Table 1-Less Variable Costs:

This information can be found in the Purdue Crop Guide. This guide is an annual publication (ID-166). The dollar amount for each crop type

can be found in section titled “Estimated XXXX (year) Per Acre Production Costs in the column for Corn/Soybean Rotation for Average Soil. See the line for “Total direct cost per acre at harvest”. The costs include labor, seed, fertilizer, chemicals, machinery repairs, and fuel.

Doster/Huie Report – Table 1-Crop Contribution Margin:

Sales less Variable Costs equal Crop Contribution Margin for each type of crop (corn/soybeans).

Doster/Huie Report – Table 1-Plus Government Payment:

The publication adds government payments as a source of additional revenue for the land. This amount for each year was estimated by the authors of the publication.

Doster/Huie Report – Table 1-Total Contribution Margin:

This number represents the average of the Crop Contribution Margin for corn and soybeans plus one-half (1/2) of the amount for the government payment. (The sum of the three numbers divided by two.)

Doster/Huie Report – Table 1-Less Overhead:

The overhead expense for machinery, drying/handling, & family/hired labor can be found on the Purdue Crop Guide (ID-166). The dollar amount for each crop type can be found in section titled “Estimated XXXX (year) Per Acre Production Costs in the column for Corn/Soybean Rotation for Average Soil. See the lines for “Indirect charges per acre”.

Doster/Huie Report – Table 1-Real Estate Tax:

A deduction of \$10 for real estate taxes was estimated by the authors.

Doster/Huie Report – Table 1-Income:

Total Contribution Margin less the Overhead Expenses of machinery, drying/handling, labor, & real estate taxes equals Income.

Doster/Huie Report – Table 1-Estimated Land Value:

The authors of the paper then averaged the four years (1996 – 1999) income and divided it by a 1999 interest rate to arrive at an Estimated Land Value of \$971.

Table 2-18 – Net Income from Operating:

This income represents the profits from the owner-occupied production of crops on agricultural land. While the foundation for the calculations that our agency adopted comes from Table 1 of the June 24, 1999 Doster/Huie report, we did make some alterations to it.

Adjustments Made To The Doster/Huie Report By Our Department:

Years:

We added the statistics for 1995 which were available and deleted the estimates for 1999 since interest rates and income data were not available. For the calculation for 3/1/05, we began with 1999.

Price:

We added two averages to the Doster/Huie report since this report used only November prices. Since only a small portion of Indiana's grain is sold in November, the Department of Local Government Finance developed two annual averages for the calculation. The first average was the calendar year average of the grain prices which are published in the IASS book. The second average was the market year average. This average is calculated by the IASS and is a weighted average that is based on the end of the month grain price and the percentage of the total grain harvested that was sold that month.

Interest Rate:

Instead of using the 1999 St. Paul Farm Credit Bank interest rate, we chose to use the quarterly farm loan rates published by the Federal Reserve Bank of Chicago. The FRBC publishes an agricultural newsletter on a quarterly basis called the "AgLetter". This newsletter provides interest rates on farm loans for operating loans, feeder cattle, and real estate. The Department averaged the interest rates for the operating loans and real estate categories. A study was conducted on different sources of interest rates between Purdue Agricultural Economics Reports, the St. Paul Farm Credit Bank, and the Federal Reserve Bank of Chicago. The study found that the rates varied from year to year but when averaged out over the four year period were comparable.

Valuing Agricultural Land

The agricultural land assessment formula involves the identification of agricultural tracts using data from detailed soil maps, aerial photography, and local plat maps. Each variable in the land assessment formula is measured using appropriate devices to determine its size and effect on the parcel's assessment. Uniformity is maintained in the assessment of agricultural land through the proper use of soil maps, interpreted data, and unit values.

In order to apply the agricultural land assessment formula, you need to understand the following topics, which are discussed in the sections below:

- agricultural land base rate values
- assessment of agricultural land
- units of measurement for agricultural land
- classification of agricultural land into land use types
- use of soil maps
- calculating the soil productivity index
- valuation of strip mined agricultural land
- valuation of oil and gas interests

The rest of the chapter provides instructions for completing the "Land Data and Computations" section of the agricultural property record card.

Agricultural Land Base Rate Value

The 2002 general reassessment agricultural land value utilizes the land's current market value in use, which is based on the productive capacity of the land, regardless of the land's potential or highest and best use. The most frequently used valuation method for use-value assessment is the income capitalization approach. In this approach, use-value is based on the residual or net income that will accrue to the land from agricultural production.

As illustrated in the following equation, the market value in use of agricultural land is calculated by dividing the net income of each acre by the appropriate capitalization rate.

$$\text{Market value in use} = \text{Net Income} \div \text{Capitalization Rate}$$

The net income of agricultural land can be based on either the net operating income or the net cash rent. Net operating income is the gross income received from the sale of crops less the variable costs (i.e. seed and fertilizer) and fixed costs (i.e. machinery, labor, property taxes) of producing crops. The net cash rent income is the gross cash rent of an acre of farmland less the property taxes on the acre. Both methods assume the net income will continue to be earned into perpetuity.

The capitalization rate converts the net income into an estimate of value. The capitalization rate reflects, in percentage terms, the annual income relative to the value of an asset; in this case agricultural land. Conceptually, this capitalization

rate incorporates the required returns to various forms of capital, associated risks, and the anticipated changes over time.

Since agricultural land in Indiana is nearly evenly divided between cash rent and owner-occupied production, the State Board of Tax Commissioners utilized a four-year rolling average (1995 to 1998) of both methods in determining the market value in use of agricultural land. The capitalization rate applied to both types of net income was based on the annual average interest rate on agricultural real estate and operating loans in Indiana for this same period. The table below summarizes the data used in developing the average market value in use.

Table 2-18. Agricultural Land market value in use

YEAR	NET INCOMES		CAP. RATE	MARKET VALUE IN USE		
	Cash Rent	Operating		Cash Rent	Operating	Average
1995	\$88	\$56	9.92%	\$887	\$565	\$ 726
1996	\$94	\$131	9.29%	\$1012	\$1410	\$1,211
1997	\$100	\$124	9.31%	\$1074	\$1332	\$1,203
1998	\$102	\$91	9.10%	\$1121	\$1000	\$1,060
				Average Market Value in Use =		\$1,050

The statewide agricultural land base rate value for the 2002 general reassessment will be the average market value in use calculated as shown above or \$1,050 per acre.

Assessing Agricultural Land

The agricultural land assessment formula involves identifying agricultural tracts using data from a detailed soil map, aerial photography, and local plat maps. Each variable of the land assessment formula is measured using various devices to determine its size and effect on the parcel's assessment. The proper use of the soil maps, interpreted data, and unit values results in greater uniformity in the assessment process of agricultural lands. Some commercial and industrial zoned acreage tracts devote a portion of the parcel to an agricultural use. The assessor classifies these parcels as either commercial or industrial. However, the portion of land devoted to agricultural use should be valued using the agricultural land assessment formula. Portions not used for agricultural purposes would be valued using the commercial and industrial acreage guidelines described in this chapter.

Converting Units of Measurement for Agricultural Land

Figure 2-23 shows the units of measurement commonly used to measure agricultural land. Table 2-19 describes equivalencies for these units of measurement.

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Certification of Agricultural Land Base Rate Value for Assessment Year 2010

This memorandum hereby serves to notify assessing officials of the agricultural base rate to be used for the March 1, 2010 assessment date: **\$1,400 per acre.**

Land used for agricultural purposes shall be adjusted consistent with the guideline methodology developed for the 2002 general reassessment agricultural land value except, in determining the annual base rate, the Department of Local Government Finance ("Department") shall adjust the methodology to use a six (6) year rolling average instead of a four (4) year rolling average. The Department will issue annually, before January 1, the base rate to be applied for the following March 1 assessment date. 50 IAC 21-6-1(a)

Those portions of agricultural parcels that include land and buildings not used agriculturally, such as homes, homesites, and excess land and commercial or industrial land and buildings, shall be adjusted by the factor or factors developed for other similar property within the geographic stratification. The residence portion of agricultural properties will be adjusted by the factors applied to similar residential properties. 50 IAC 21-6-1(b)

The 2010 assessment year agricultural land value utilizes the land's current market value in use, which is based on the productive capacity of the land, regardless of the land's potential or highest and best use. The most frequently used valuation method for use-value assessment is the income capitalization approach. In this approach, use-value is based on the residual or net income that will accrue to the land from agricultural production.

As illustrated in the following equation, the market value in use of agricultural land is calculated by dividing the net income of each acre by the appropriate capitalization rate.

$$\text{Market value in use} = \text{Net Income} \div \text{Capitalization Rate}$$

The net income of agricultural land can be based on either the net operating income or the net cash rent. Net operating income is the gross income received from the sale of crops less the variable costs (i.e. seed and fertilizer) and fixed costs (i.e. machinery, labor, property taxes) of producing crops. The net cash rent income is the gross cash rent of an acre of farmland less the property taxes on the acre. Both methods assume the net income will continue to be earned into perpetuity.

The capitalization rate converts the net income into an estimate of value. The capitalization rate reflects, in percentage terms, the annual income relative to the value of an asset; in this case agricultural land. Conceptually, this capitalization rate incorporates the required returns to various forms of capital, associated risks, and the anticipated changes over time.

Since agricultural land in Indiana is nearly evenly divided between cash rent and owner-occupied production, the Department utilized a six-year rolling average (2002 to 2007) of both methods in determining the market value in use of agricultural land. The capitalization rate applied to both types of net income was based on the annual average interest rate on agricultural real estate and operating loans in Indiana for this same period. The table below summarizes the data used in developing the average market value in use.

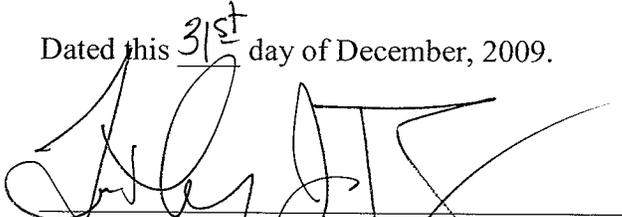
Table 2-18. Agricultural Land market value in use

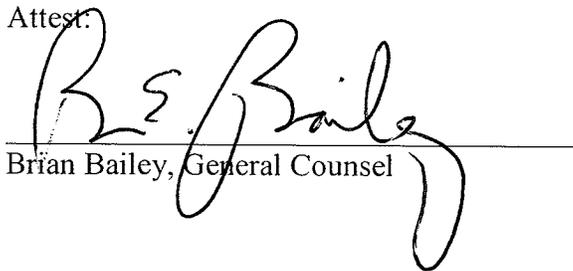
Source: Real Property Assessment Guidelines for 2002-Version A, Book 1, Chapter 2, pg. 100

Year	<u>NET INCOMES</u>			<u>MARKET VALUE IN USE</u>		
	Cash Rent	Operating	Cap. Rate	Cash Rent	Operating	Average
2002	105	20	7.02%	1,496	285	890
2003	106	71	6.29%	1,685	1,129	1,407
2004	104	135	6.35%	1,638	2,126	1,882
2005	110	59	7.22%	1,524	817	1,170
2006	110	74 ¹	8.18%	1,345	905	1,125
2007	122	182	7.94%	1,537	2,292	1,914
Average Market Value in Use						\$1,400

The statewide agricultural land base rate value for the 2010 assessment year will be \$1,400 per acre.

Dated this 31st day of December, 2009.


 Timothy J. Rushenber, Commissioner
 Department of Local Government Finance

Attest:

 Brian Bailey, General Counsel

¹ The Operating Income for 2006 was changed slightly from last year's calculation. This was the result of the Indiana Agricultural Statistics Service updating the published data. The change was made to the November, 2006 price per bushel for both corn and soybeans. Corn was increased from \$3.01 to \$3.03 per bushel and soybeans were increased from \$6.10 to \$6.13. This slight change would have had no impact on the March 1, 2009 base rate of \$1,250, which the Department certified in December 2008.

A Method for Assessing Indiana Cropland An Income Approach to Value

D. Howard Doster & John M. Huie, Purdue Ag Economists
June 24, 1999

Summary

A method for taxing agricultural cropland based on the income potential of the land can be developed. The method is illustrated below. Data components of this method include detailed soil maps, estimated yields and production costs by soil type, reported average yields by county, reported average Indiana November corn and soybean prices, USDA corn and soybean loan prices by county, and the interest rate on new Farm Credit Bank loans in the St Paul district.

Using this information, a land value can be calculated for each soil type in each county in Indiana. Using detailed soil maps, county staff can then calculate income, land value, and tax due for each ownership parcel.

Using state yields, prices, and costs for 1996, 1997, 1998, and estimates for 1999, income and land values are calculated below for average and high yield soil types. As shown in Table 1, the average land value is calculated to be \$971. In Table 2, the high yield land is valued at \$1510.

As shown in the tables, incomes for 1996 and 1997 are much higher than incomes for 1998 and projected 1999. Though not shown, income for 1995 was much higher than projected income for 1999.

Detailed soil maps

Maps from The Natural Resource and Conservation Service (NRCS) are now available for all counties indicating the soil type of all land in the state. County staff have used this information in past years. For five counties, this soil type information has been transferred to a GIS data base. In these counties, county staff could identify land ownership units in the GIS data base and with appropriate computer software, calculate the real estate tax on cropland.

In 1998, computer software was developed by Purdue Ag Economists for calculating income for user entered ownership parcels in Tippecanoe County. This program was shown at the July, 1998 Purdue Top Farmer Crop Workshop and the September, 1998 Prairie Farmer Farm Progress Show. The purpose of these demonstrations was to show prospective landowners, prospective tenants, and professional appraisers a way to estimate income potential of an ownership parcel.

Estimated yield and production cost by soil type

Purdue agronomists and NRCS staff have estimated crop yields for each soil type in Indiana. (These yield estimates may need to be updated, and possible differences considered for the same soil type in different counties.) Purdue staff annually estimate crop production costs for low, average, and high yielding soil types. The process could be computerized and budgets could be prepared for all Indiana soils.

Reported average yield by county

The Indiana Agricultural Statistics Service reports average yield for each county in May each year for the preceding year's crops. An expected trend yield could be calculated for each soil in each county. Each year, these trend yields could be adjusted by the same percentage change as the difference between the county expected and reported average yields.

Reported average Indiana November corn and soybean prices

The Indiana Agricultural Statistics Service reports average Indiana crop prices for each month. Prices for November^{1/4} are used in calculating per acre corn and soybean income.

USDA corn and soybean loan price

USDA has determined corn and soybean loan prices for each Indiana county. These prices reflect crop price differences because of the location of the county. Therefore, the November state average prices for corn and soybeans could be adjusted by the price location differences in loan prices to obtain an estimate of November prices by county.

St Paul Farm Credit Bank interest rate

For each year, the Internal Revenue Service issues a listing of the average annual effective interest rates charged on new loans under the Farm Credit Bank system. These rates are used in computing the special use value of real property used as a farm for which an election is made under section 2032A of the Internal Revenue Code. Indiana is in the St Paul district. For 1999, the reported interest rate is .0821.

Weighted annual incomes and estimated land values

As shown in Table 1, the 4-year average annual income is \$80 and the estimated land value is \$971. As shown in Table 2, for the high yield land the average income is \$124 and the land value is \$1510.

Annual incomes could be weighted with income from the most recent year being weighted the most. One option would be a percentage weight of 40 - 30 - 20 - 10 with the most recent year at 40% and the most distant year at 10%. Using this criteria, the weighted average annual income is \$71.10 and the estimated average land value is \$866. A weighting of 33 - 27 - 22 - 18 with the most recent year at 33% and the most distant year at 18% produces a weighted average annual income of \$75.27 and an estimated average land value of \$917.

For high yield soil, the 40 - 30 - 20 - 10 optimal weights give an average income of \$113 and a land value of \$1379. The 33 - 27 - 22 - 18 weights give an average income of \$118 and a land value of \$1442.

This approach - discounting the potential agricultural income - to valuing farm land is reasonable so long as the income estimates and the discount rates are defensible. There is also logic to using a four year average with the most recent years being weighted higher, especially if the state were to go to annual assessments. So long as they stay with a four year assessment cycle it becomes more of a judgement call.

^{1/4}Prices tend to increase throughout the year. November, a month close to the end of the harvest season was chosen. If prices later than November are chosen then a storage cost would also need to be included.

Income and land value estimates

As illustrated in Tables 1 and 2, income from a corn/soybean rotation on average and high yield soils is calculated for 1996-99.

State average yields for each soil are multiplied by November prices to obtain per acre sales.

Variable costs as found in the Purdue Crop Guide for average and high yield soils are subtracted to obtain per acre contribution margin from crops.

Corn contribution margin plus soybean contribution margin plus government payment is added and the sum is divided by 2 to get per acre total contribution margin.

Overhead costs from the Purdue Crop Guide for a corn/soybean farm are subtracted from the contribution margin to get per acre income.

Incomes for the four years are averaged.

The average income is divided by the St Paul interest rate to get estimated land value.

Table 1. Indiana Land Value Calculation
Based on an Income Approach, 1996-99
Average Yield Soil

	1996		1997		1998		1999	
	Corn	Beans	Corn	Beans	Corn	Beans	Corn	Beans
Yield ^{1/}	123	38	122	43.5	132	42	134.1	42.9
Price (November) ^{1/}	<u>\$2.69</u>	<u>\$6.90</u>	<u>\$2.60</u>	<u>\$6.88</u>	<u>\$2.06</u>	<u>\$5.49</u>	<u>\$2.04</u>	<u>\$5.40</u>
Sales	\$331	\$262	\$317	\$299	\$282	\$231	\$274	\$232
Less variable costs ^{2/}	<u>134</u>	<u>94</u>	<u>137</u>	<u>96</u>	<u>148</u>	<u>85</u>	<u>145</u>	<u>86</u>
Crops contribution margin	\$197	\$168	\$180	\$203	\$134	\$146	\$129	\$146
Plus government payment ^{3/}	<u>\$23</u>		<u>\$45</u>		<u>\$53</u>		<u>\$34</u>	
Total contribution margin	\$194		\$214		\$167		\$154	
Less overhead:								
Annual machinery ^{2/}	48		50		49		49	
Drying/handling	6		6		7		7	
Family/hired labor ^{2/}	37		37		37		37	
Real estate tax ^{3/}	<u>10</u>		<u>10</u>		<u>10</u>		<u>10</u>	
Equals:								
Income	\$93		\$111		\$64		\$51	

4-year average income = \$80
1999 St Paul interest rate^{4/} = .0821
Estimated land value = \$971

^{1/} State average yield, state average November price as reported by Indiana Agricultural Statistics Service.

^{2/} Costs are taken from annual Purdue Crop Guide, ID-166.

^{3/} Government payments and real estate tax are estimated by the author.

^{4/} Average annual effective interest rate on new loans under the Farm Credit Bank System, St Paul district.

Table 2. Indiana Land Value Calculation
Based on an Income Approach, 1996-99
High Yield Soil

	1996		1997		1998		1999	
	Corn	Beans	Corn	Beans	Corn	Beans	Corn	Beans
Yield ^{1/}	151.3	46.8	49.9	53.6	169	51	165	52.8
Price (November) ^{1/}	<u>\$2.69</u>	<u>\$6.90</u>	<u>\$2.60</u>	<u>\$6.88</u>	<u>\$2.06</u>	<u>\$5.49</u>	<u>\$2.04</u>	<u>\$5.40</u>
Sales	\$407	\$323	\$390	\$369	\$348	\$280	\$337	\$285
Less variable costs ^{2/}	<u>153</u>	<u>103</u>	<u>157</u>	<u>106</u>	<u>170</u>	<u>91</u>	<u>167</u>	<u>92</u>
Crops contribution margin	\$254	\$220	\$233	\$263	\$178	\$189	\$170	\$193
Plus government payment ^{3/}	<u>\$29</u>		<u>\$56</u>		<u>\$64</u>		<u>\$42</u>	
Total contribution margin	\$252		\$276		\$216		\$202	
Less overhead:								
Annual machinery ^{2/}	53		55		54		54	
Drying/handling	7		7		8		8	
Family/hired labor ^{2/}	37		37		37		37	
Real estate tax ^{3/}	<u>14</u>		<u>14</u>		<u>14</u>		<u>14</u>	
Equals:								
Income	\$141		\$163		\$103		\$89	

4-year average income = \$124
1999 St Paul interest rate^{4/} = .0821
Estimated land value = \$1510

^{1/} State average yield, state average November price as reported by Indiana Agricultural Statistics Service.

^{2/} Costs are taken from annual Purdue Crop Guide, ID-166.

^{3/} Government payments and real estate tax are estimated by the author.

^{4/} Average annual effective interest rate on new loans under the Farm Credit Bank System, St Paul district.

Table 2-18 - Updated for March 1, 2010
 Source: Real Property Assessment Guidelines, Book 1, Chapter 2, Page 100

Year	Column A	Column B	Column C	Column D	Column E	Column F
	NET INCOMES PER ACRE		RATE	MARKET VALUE IN USE PER ACRE		AVERAGE MARKET VALUE IN USE PER ACRE
2002	Cash Rent 105	Owner-Operated 20	Cap. Rate 7.02%	Cash Rent 1,496	Owner-Operated 285	890 (1)
2003	106	71	6.29%	1,685	1,129	1,407 (1)
2004	104	135	6.35%	1,638	2,126	1,882 (1)
2005	110	59	7.22%	1,524	817	1,170 (1)
2006	110	74	8.18%	1,345	905	1,125 (1)
2007	122	182	7.94%	1,537	2,292	1,914 (1)

Base Rate
 (6 Yr. Average)
1,400 (2)

Formula: Gross Cash Rent Less Property Taxes Gross Income Less Expenses Average of Qlty. Farm Loan Rates Column A divided by Column C Column B divided by Column C The average of Columns D and E (1)

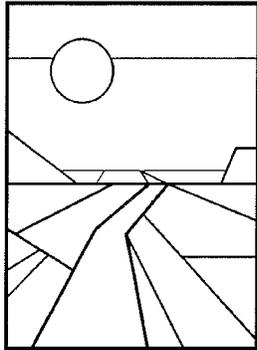
Source: Purdue Ag. Econ. Reports (PAER) Indiana Ag. Statistics Service and Purdue Crop Guide Federal Reserve Bank of Chicago The base rate is the average of the six averages above rounded to the nearest \$10. (2)

As illustrated in the following equation, the market value in use of agricultural land is calculated by dividing the net income of each acre by the appropriate capitalization rate.

$$\text{Market Value In Use} = \frac{\text{Net Income Divided By The Capitalization Rate}}{\text{Capitalization Rate}}$$

Table 2-18 - Updated for March 1, 2010
Calculation for Net Income-Cash Rent Column

<u>Year</u>	<u>Gross</u> Cash <u>Rent</u>	<u>Less</u> Property <u>Taxes</u>	<u>Net</u> Cash <u>Rent</u>	<u>Cap.</u> <u>Rate</u>	<u>Cash</u> Rent <u>Value</u>
2002	116	-11	105	7.02%	1,496
2003	120	-14	106	6.29%	1,685
2004	122	-18	104	6.35%	1,638
2005	126	-16	110	7.22%	1,524
2006	127	-17	110	8.18%	1,345
2007	139	-17	122	7.94%	1,537



PURDUE AGRICULTURAL ECONOMICS REPORT

AUGUST 2003

Indiana Farmland Values & Cash Rents Continue to Increase

Craig L. Dobbins and Kim Cook

The June 2003 Purdue Land Values Survey found that on a state-wide basis bare Indiana cropland ranged in value from \$1,966 to \$3,035. These values are based on 323 surveys received from professionals that are knowledgeable of Indiana's farmland market. Poor land had an estimated value of \$1,966 per acre, average land had an estimated value of \$2,509 per acre, and top land had an estimated value of \$3,035 per acre (Table 1). For the 12-month period ending in June 2003, this was an increase of 5.2%, 5.3% and 4.9%, respectively for poor, average, and top land.

Part the difference in land values reflects productivity differences. As a measure of productivity, survey respondents were asked to estimate long-term corn yields. The average reported yield was 103, 134, and 163 bushels per acre, respectively for poor, average, and top quality land. The value per bushel for different land qualities was very similar. Poor land was the most expensive at \$19.07 per bushel. Top land had the

* *Transitional land is land that is moving out of agriculture.*

** *The median value is the value in the middle of data that have been arranged in ascending or descending numerical order.*

lowest value at \$18.59 per bushel and average land was \$18.79 per bushel.

The average value of transition land* increased this year, reversing the decline that occurred in last year's survey. The average value of transition land in June 2003 was \$6,936 per acre, an increase of 7.6% from June 2002. Due to the wide variation in estimates for transitional land, the median value** may give a more meaningful picture than the arithmetic average. The median value of transitional land in June 2003 was \$5,500 per acre.

Statewide Rents

Cash rents increased statewide from 2002 to 2003 by \$2 to \$4 per acre (Table 2). The estimated cash rent was \$147 per acre on top land, \$120 per acre on average land, and \$93 per acre on poor land. This was an increase in rental rates of 2.2% for poor land, 3.4% for average land, and 2.8% for top land. Rent per bushel of estimated corn yield was \$0.90 per bushel for all land classes. Cash rent as a percentage of value continued to decline. For top and average farmland, cash rent as a percentage of farmland value was 4.8%. For poor farmland, cash rent as a percentage of farmland was 4.7%. These values are the lowest achieved



in 27 year history of the Purdue Land Value Survey.

Area Land Values

Changes in the value of farmland in the six different geographic areas of Indiana (Figure 1) for December 2002 to June 2003 ranged from a 2.1% increase for poor land in the Central region to a 4.5% increase for average land in the Southwest region (Table 1). All regions of the state reported strong increases in farmland values for this six-month period. The strongest region was the Southwest with increases ranging from 3.4% to 4.5%.

For the year ending June 2003, the change in land values ranged from a decline of 8.4% for poor land in the

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Area Cash Rents

All areas of the state reported increases in cash rent (Table 2). Only the Central and Southwest region reported a decline in cash rent. In both regions, the cash rent for poor land declined. The strongest increase in cash rent occurred in the Southeast region.

Cash rents are the highest in the Central and West Central regions. The cash rent for top land in both regions was \$158 per acre. Cash rents per bushel for the West Central and Central regions ranged from \$0.93 to \$0.98 per bushel. These per bushel rents are the highest in the state. The next highest per-bushel rent was in the North, ranging from \$0.88 to \$0.91 per bushel. Per bushel rents in the Northeast and Southwest ranged from \$0.82 to \$0.88. The lowest per bushel cash rents were \$0.74 to \$0.75, reported for the Southeast.

Important Factors in the Land Market

Several factors influence farmland prices. The supply of land on the market, the number of buyers interested in making a farmland purchase, and expectations about grain prices, interest rates, and the rate of inflation are just a few examples. To assess the supply of land on the market, respondents were asked to provide their opinion about the amount of farmland on the market now compared to a year earlier. The respondents were asked to indicate if there was more, less, or the same amount of land on the market now compared to a year earlier. Eight-six percent of the respondents indicated that the amount of land on the market at the current time was the same or less. These results are nearly the same as past years (Figure 2). Only 15% of the respondents indicated there was more farmland on the market. These results indicate the supply of land for sale remains limited.

To assess the amount of market activity, respondents were asked to provide their opinion of the number of farmland transfers in the past six months compared to a year earlier. The respondents could indicate that the number of transfers was up,

Table 2. Average estimated Indiana cash rent per acre, (tillable, bare land) 2002 and 2003, Purdue Land Value Survey, June 2003

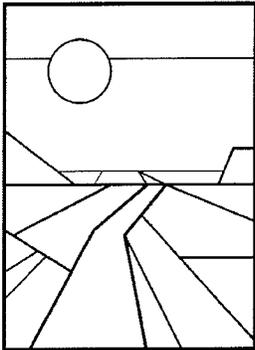
Area	Land Class	Corn bu/A	Rent/Acre		Change 02-03 %	Rent/bu. of Corn		Rent as % of June Land Value	
			2002 \$/A	2003 \$/A		2002 \$/bu.	2003 \$/bu.	2002 %	2003 %
North	Top	162	141	143	1.4%	0.88	0.88	5.3	4.7
	Average	130	113	115	1.8%	0.88	0.88	5.2	4.8
	Poor	100	88	91	3.4%	0.90	0.91	5.3	4.9
Northeast	Top	160	132	138	4.5%	0.82	0.86	4.9	4.8
	Average	128	104	106	1.9%	0.81	0.83	4.9	4.5
	Poor	97	81	82	1.2%	0.82	0.84	4.9	4.5
W. Central	Top	166	154	158	2.6%	0.96	0.95	5.3	5.2
	Average	138	131	134	2.3%	0.98	0.97	5.5	5.2
	Poor	108	103	106	2.9%	0.97	0.98	5.6	5.2
Central	Top	167	156	158	1.3%	0.94	0.95	4.9	4.7
	Average	138	128	129	0.8%	0.92	0.93	4.8	4.6
	Poor	109	103	102	-1.0%	0.94	0.94	4.7	4.3
Southwest	Top	167	145	147	1.4%	0.86	0.88	5.0	5.2
	Average	132	112	115	2.7%	0.85	0.87	5.0	5.5
	Poor	96	82	79	-3.7%	0.83	0.82	5.2	6.0
Southeast	Top	153	111	114	2.7%	0.73	0.75	4.5	4.2
	Average	124	88	93	5.7%	0.73	0.75	4.3	4.0
	Poor	96	66	71	7.6%	0.73	0.74	4.2	3.7
Indiana	Top	163	143	147	2.8%	0.88	0.90	5.0	4.8
	Average	134	116	120	3.4%	0.88	0.90	5.0	4.8
	Poor	103	91	93	2.2%	0.89	0.90	5.0	4.7

down, or the same as a year earlier. Again, the largest number of respondents indicated the number of farmland transfers was the same as a year ago (Figure 3). However in this case, there has been a steady rise in the number of respondents indicating an increase in the number of transfers and a steady decline in the number of respondents indicating a decline. These changes indicate that there has been some increase in the number of farmland transfers.

Respondents were asked to provide their perceptions of changes in the buyers of farmland by indicating if purchases by farmers, rural residents, nonfarm investors, or pension funds had increased, decreased, or remained the same when compared to a year earlier. Demand from farmers and nonfarm investors have shown the largest changes. This year, just over 43% of the respondents indicated that there was an increased demand from farmers (Figure 4). This

Table 3. Median value of five-acre home sites and home sites of ten acres or more

Area	Median value, \$ per acre							
	5 Acres or less for home site				10 Acres & over for subdivision			
	2000 \$/A	2001 \$/A	2002 \$/A	2003 \$/A	2000 \$/A	2001 \$/A	2002 \$/A	2003 \$/A
North	5,000	5,250	6,000	6,000	5,000	5,000	5,000	5,000
Northeast	5,000	5,000	5,000	6,000	4,500	4,500	4,500	5,000
West Central	5,000	5,000	5,800	6,000	5,000	5,000	5,000	5,000
Central	6,000	6,250	7,000	8,500	5,500	5,000	5,750	7,500
Southwest	5,000	6,000	5,000	5,000	5,000	6,000	5,000	5,000
Southeast	5,000	5,000	5,500	6,000	4,000	4,000	5,000	4,750



PURDUE AGRICULTURAL ECONOMICS REPORT

AUGUST 2005

Indiana Farmland Values & Cash Rents Jump Upward

Craig L. Dobbins and Kim Cook

Statewide Land Values

The June 2005 Purdue Land Values Survey found that on a state-wide basis bare Indiana cropland ranged in value from \$2,367 per acre for poor land, to \$3,556 per acre for top land (Table 1). Average bare Indiana cropland had an estimated value of \$2,945 per acre. For the 12-month period ending in June 2005, this was an increase of 11.1%, 9.4% and 8.5%, respectively for poor, average, and top land. Increases this large have not occurred since 1996-1997 when the Purdue Land Values Survey reported a state wide increase of 12% to 15%.

Part of the difference in land values reflects productivity differences. As a measure of productivity, survey respondents provide an estimate of long-term corn yields. The average

reported yield was 108, 139, and 169 bushels per acre, respectively for poor, average, and top land. The value per bushel for different land qualities was very similar, ranging from \$21.08 to \$22.01 per bushel.

The average value of transitional land, land moving out of agriculture, increased 8.5% this year. The average value of transitional land in June 2005 was \$8,207 per acre. Due to the wide variation in estimates for transitional land, the median value* may give a more meaningful picture than the arithmetic average. The median value of transitional land in June 2005 was \$7,000 per acre.

Statewide Rents

Cash rents increased statewide \$3 to \$4 per acre (Table 2), continuing the steady increase of the past several years. The estimated cash rent was \$154 per acre on top land, \$126 per acre on average land, and \$99 per acre on poor land. This was an increase in rental rates of 3.1% for poor land, 3.3% for

average land, and 2.7% for top land. State wide, rent per bushel of estimated corn yield ranged from \$0.91 to \$0.92 per bushel.

Cash rent as a percentage of value continued to decline. For top and average farmland, cash rent as a percentage of farmland value was 4.3%. For poor farmland, cash rent as a percentage of farmland value was 4.2%. These values are the lowest reported in the 31 year history of the Purdue Land Value Survey.

Area Land Values

Survey responses were organized into six geographic regions of Indiana (Figure 1). In past years, there have been definite geographic differences in land value changes. This year there is only one notable difference – the change in land values in the Southeast was not as large as in other areas of the state (Table 1). The highest valued land continues to be in the Central region followed by the West Central, North, Northeast, Southwest, and Southeast.

* The median is the middle observation in data that have been arranged in ascending or descending numerical order.

acre (Table 3). Estimated per acre median values of the larger tracts (10 acres) ranged from \$5,250 to \$8,500 per acre.

Area Cash Rents

All areas of the state reported an increase in cash rent for all land qualities (Table 2). The largest percentage increases in cash rent occurred in the Southern regions of the state.

Cash rents are the highest in the Central and West Central regions. Across all three land qualities, cash rents in these two regions were very similar. When looking at the cash rent per bushel for the West Central and Central regions, these values ranged from \$0.97 to \$1.03 per bushel. These per bushel rents are the highest in the state. The next highest per-bushel rent was in the North and Southwest, ranging from \$0.88 to \$0.91. Per bushel rents in the Northeast ranged from \$0.84 to \$0.86. The lowest per bushel cash rents were \$0.74 to \$0.77, reported for the Southeast.

Farmland Supply & Demand

The supply of land on the market and the number of interested buyers and their expectations has an important influence on farmland prices. To assess the supply of land on the market, respondents were asked to provide their opinion of the amount of farmland on the market now compared to a year earlier. The respondents indicated either more, the same, or less. Only 16% of the 2005 respondents indicated more land was on the market now compared to year-ago levels (Figure 2). The

Table 2. Average estimated Indiana cash rent per acre, (tillable, bare land) 2004 and 2005, Purdue Land Value Survey, June 2005

Area	Land Class	Corn bu/A	Rent/Acre		Change '04-'05 %	Rent/bu. of Corn		Rent as % of June Land Value	
			2004 \$/A	2005 \$/A		2004 \$/bu.	2005 \$/bu.	2004 %	2005 %
North	Top	173	149	153	2.7%	0.89	0.88	4.4	4.1
	Average	140	122	125	2.5%	0.89	0.89	4.5	4.2
	Poor	107	93	97	4.3%	0.88	0.90	4.5	4.1
Northeast	Top	165	138	141	2.2%	0.84	0.86	4.3	4.1
	Average	134	107	111	3.7%	0.81	0.83	4.1	3.9
	Poor	104	85	87	2.4%	0.85	0.84	4.1	3.7
W. Central	Top	168	162	166	2.5%	0.98	0.99	4.8	4.5
	Average	140	137	140	2.2%	0.99	1.00	4.9	4.5
	Poor	108	109	112	2.8%	1.02	1.03	4.9	4.6
Central	Top	172	162	167	3.1%	0.95	0.97	4.6	4.2
	Average	142	133	138	3.8%	0.94	0.97	4.4	4.1
	Poor	113	108	112	3.7%	0.97	0.99	4.3	4.0
Southwest	Top	170	146	155	6.2%	0.90	0.91	5.0	5.0
	Average	138	116	123	6.0%	0.89	0.89	5.2	4.9
	Poor	106	89	93	4.5%	0.89	0.88	5.6	5.0
Southeast	Top	161	118	123	4.2%	0.77	0.77	4.1	4.2
	Average	133	94	99	5.3%	0.76	0.74	3.9	4.0
	Poor	103	72	77	6.9%	0.74	0.74	3.7	3.8
Indiana	Top	169	150	154	2.7%	0.91	0.91	4.6	4.3
	Average	139	122	126	3.3%	0.90	0.91	4.5	4.3
	Poor	108	96	99	3.1%	0.92	0.92	4.5	4.2

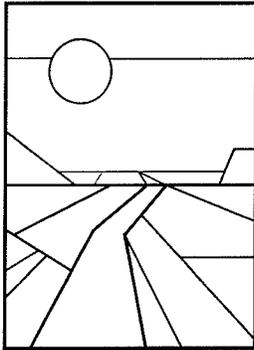
remaining 84% of the respondents indicated the amount of land on the market at the current time was the same or less than a year ago. These results indicate the quantity of land for sale remains limited.

Respondents were also asked to indicate if interest in a farmland purchase by

farmers, rural residents, or nonfarm investors had increased, decreased, or remained the same compared to a year earlier. A total of 55% of the respondents indicated increased farmer interest (Figure 3). Forty-one percent of the respondents indicated

Table 3. Median value of five-acre and ten-acre home sites

Area	Median value, \$ per acre							
	5 Acres or less for home site				10 Acres & over for subdivision			
	2002 \$/A	2003 \$/A	2004 \$/A	2005 \$/A	2002 \$/A	2003 \$/A	2004 \$/A	2005 \$/A
North	6,000	6,000	6,000	7,250	5,000	5,000	5,000	6,000
Northeast	5,000	6,000	6,000	6,500	4,500	5,000	5,000	5,000
West Central	5,800	6,000	6,000	6,000	5,000	5,000	5,000	6,000
Central	7,000	8,500	8,000	10,000	5,750	7,500	7,900	8,500
Southwest	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,250
Southeast	5,500	6,000	6,000	7,000	5,000	4,750	5,000	6,000



PURDUE AGRICULTURAL ECONOMICS REPORT

AUGUST 2007

Indiana Farmland Values & Cash Rents Jump Upward

Craig L. Dobbins, Professor and Kim Cook, Research Associate

What a difference a year can make. Last year at this time, there were questions about whether or not farmland values were nearing a top. There are no such discussions this year. This year the question is “How high might farmland values and cash rent go?”

State-wide Land Values

Higher corn and soybean prices brought about by the increased demand for these crops are being translated into higher farmland values and cash rents. The June 2007 Purdue Land Value Survey found that farmland values in all areas of the state took a sharp turn upward. On a state-wide basis, the average value of bare Indiana cropland ranged from \$2,991 per acre for poor quality land to \$4,407 per acre for top quality land (Table 1). Average quality Indiana cropland had an estimated average value of \$3,688 per acre. For the 12-month period ending in June 2007, this was an increase of 19.2%, 16.6%, and 16.9%, respectively for poor, average, and top quality land. One needs to go back to 1977 to find a larger annual increase in Indiana farmland values.

Land quality was measured in the survey by asking survey respondents

* The median is the middle observation in data that have been arranged in ascending or descending numerical order.

to provide an estimate of long-term corn yields. The average reported yield was 112, 144, and 175 bushels per acre, respectively for poor, average, and top quality land. State-wide, the value per bushel for different land qualities was very similar, ranging from \$25.15 to \$26.80 per bushel. On a per bushel basis, the most expensive land is the poor quality land with a value of \$26.80 per bushel. Top quality land was the least expensive at \$25.15 per bushel.

The average value of transitional land, land moving out of agriculture, increased 4.5% this year. The average value of transitional land in June 2007 was \$9,520 per acre. However, there is a very wide range of values for transitional land – from twice its agricultural value to more than ten times its agricultural value. These values are strongly influenced by what the land is transitioning into and its location. Due to the wide variation in estimates for transitional land, the median value* may give a more meaningful picture than the arithmetic average. The median value of transitional land in June 2007 was \$7,500 per acre.

Survey respondents indicated the value of rural recreational land, land used for hunting and other recreational uses, is \$3,873 per acre across Indiana. This average is more than average quality farmland. But as with transitional land, there is a wide range of values for rural recreational

land. The June values reported for recreational land varied from \$975 to \$10,000 per acre. The median value for rural recreational land in June was \$3,500 per acre.

State-wide Rents

One important contributor to the value of farmland is the annual rent that can be obtained from ownership. State-wide, cash rents increased \$10 to \$16 per acre (Table 2). The largest dollar increase in rent was for top quality land. The smallest dollar increase in rent was for poor quality land. The estimated cash rent was \$171 per acre on top quality land, \$139 per acre on average quality land, and \$110 per acre on poor quality land. This was an increase in rental rates of 10% for poor quality land, 9.4% for average quality land, and 10.3% for top quality land. Again, this is the largest annual increase in cash rent since 1977. State-wide, rent per bushel of estimated corn yield ranged from \$0.97 to \$0.99 per bushel.

Cash rent as a percentage of value continued to decline. For top quality farmland, cash rent as a percentage

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from 12.6% to 17.6%. The exceptions to this were the changes in the value of poor quality land in the North and Southwest with changes of 24.7% and 22.3%, respectively. The increase in farmland values in the Southeast was more modest, ranging from 6.2% to 12.9%.

The highest average farmland values are in West Central and Central Indiana. While the Central Indiana top and poor quality farmland values are slightly higher than those in West Central Indiana, average quality land values are slightly higher in West Central Indiana. Land value per bushel of estimated long-term corn yield (land value divided by bushels) is the highest in the Central and West Central regions, ranging from \$26.39 to \$28.24 per bushel. This was followed by the Northeast, ranging from \$25.36 to \$28.06 per bushel and the North, ranging from \$24.57 to \$26.51. The Southwest and Southeast had the lowest land values per bushel and ranged from \$21.02 to \$25.38 per bushel.

Area Cash Rents

All areas of the state reported an increase in cash rent for all land qualities (Table 2). The strongest percentage increases were in the North and Northeast, ranging in value from 12.3% to 14.9%. This was followed by Central and West Central Indiana with changes of 7.6% to 10.9%. The changes in the Southwest and Southeast ranged from 3.2% to 8.7%.

Cash rents are the highest in the West Central region, followed by the Central region. Cash rent per bushel in West Central Indiana ranges in value from \$1.06 to \$1.12 per bushel. In the Central region, these values ranged from \$1.01 to \$1.04 per bushel. Per bushel rents in these two regions are the highest in the state. Cash rents in the North are similar to those in Central and West Central Indiana. Cash rents in the North range from \$114 to \$180 per acre and \$1.00 to \$1.02 per bushel. The per bushel rent in the Northeast and Southwest ranged from \$0.89 to \$0.95. The lowest per bushel cash rents continue to be in

Table 2. Average estimated Indiana cash rent per acre, (tillable, bare land) 2006 and 2007, Purdue Land Value Survey, June 2007

Area	Land Class	Corn bu/A	Rent/Acre		Change '06-'07 %	Rent/bu. of Corn		Rent as % of June Land Value	
			2006 \$/A	2007 \$/A		2006 \$/bu.	2007 \$/bu.	2006 %	2007 %
North	Top	181	158	180	13.9	0.91	1.00	4.2	4.1
	Average	145	128	145	13.3	0.91	1.00	4.2	4.0
	Poor	112	101	114	12.9	0.94	1.02	4.2	3.8
Northeast	Top	173	141	162	14.9	0.86	0.93	4.1	3.7
	Average	143	114	128	12.3	0.84	0.89	3.9	3.5
	Poor	110	89	100	12.4	0.85	0.91	3.7	3.2
W. Central	Top	177	169	187	10.7	0.98	1.06	4.2	4.0
	Average	147	143	157	9.8	1.01	1.07	4.1	3.9
	Poor	114	118	127	7.6	1.05	1.12	4.2	4.0
Central	Top	177	164	181	10.4	0.95	1.02	4.0	3.8
	Average	147	136	149	9.6	0.96	1.01	4.0	3.8
	Poor	117	110	122	10.9	0.99	1.04	3.9	3.8
Southwest	Top	177	158	168	6.3	0.91	0.95	4.3	4.0
	Average	145	126	134	6.3	0.90	0.93	4.3	4.1
	Poor	111	92	100	8.7	0.87	0.90	4.6	4.1
Southeast	Top	162	124	128	3.2	0.75	0.79	3.9	3.8
	Average	132	97	102	5.2	0.73	0.77	3.6	3.5
	Poor	99	75	78	4.0	0.75	0.78	3.4	3.1
Indiana	Top	175	155	171	10.3	0.91	0.98	4.1	3.9
	Average	144	127	139	9.4	0.91	0.97	4.0	3.8
	Poor	112	100	110	10.0	0.93	0.99	4.0	3.7

the Southeast, ranging from \$0.77 to \$0.79 per bushel.

Rural Home Sites

Respondents were asked to estimate the value of rural home sites with no accessible gas line or city utilities and located on a black top or well-maintained gravel road. The median value for five-acre home sites ranged from \$7,000 to \$10,000 per acre (Table 3). Estimated per acre median values of the larger tracts (10 acres) ranged from \$6,000 to \$9,000 per acre.

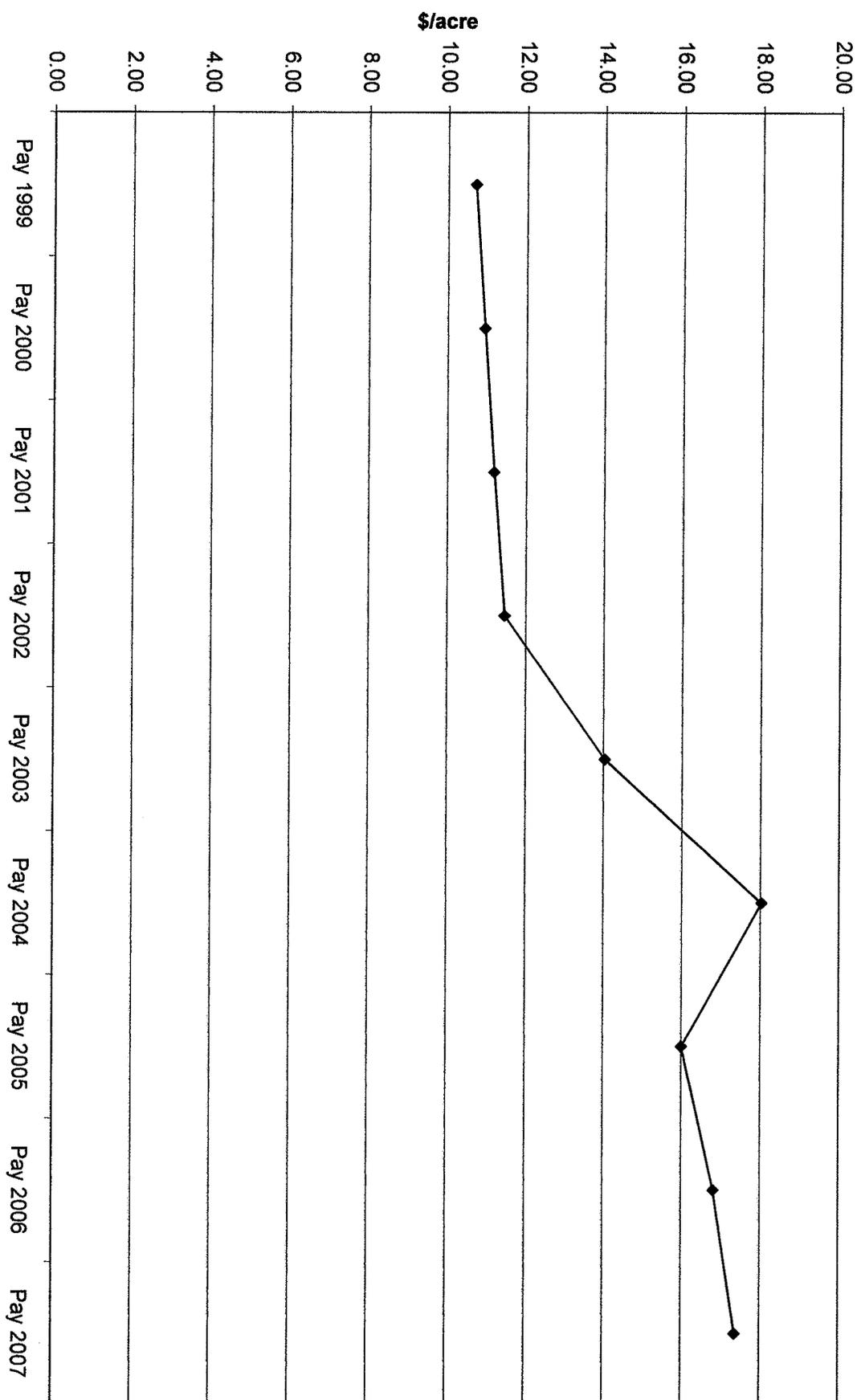
Farmland Supply & Demand

To assess the supply of land on the market, respondents were asked to provide their opinion of the amount of farmland on the market now compared to a year earlier. The respondents indicated either more, the same, or less land was on the market than one year ago. Only 15.9% of the 2007 respondents indicated more land was on the market now compared to year-ago levels (Figure 2). The remaining 84.1% of the respondents indicated the amount of land on the market

Table 3. Median value of five-acre and ten-acre home sites

Area	Median value, \$ per acre							
	5 Acres or less for home site				10 Acres & over for subdivision			
	2004 \$/A	2005 \$/A	2006 \$/A	2007 \$/A	2004 \$/A	2005 \$/A	2006 \$/A	2007 \$/A
North	6,000	7,250	7,000	8,100	5,000	6,000	7,000	8,000
Northeast	6,000	6,500	7,000	8,000	5,000	5,000	6,000	9,000
West Central	6,000	6,000	7,500	8,000	5,000	6,000	7,500	8,000
Central	8,000	10,000	10,000	10,000	7,900	8,500	10,000	9,000
Southwest	5,000	5,000	5,000	7,000	5,000	5,250	7,000	6,000
Southeast	6,000	7,000	7,000	9,000	5,000	6,000	6,250	6,750

Average Net Tax Bill/Acre of Farmland



Average Net Tax Bill/Acre of Farmland

Pay 2002	11.46
Pay 2003	14.03
Pay 2004	18.05
Pay 2005	16.01
Pay 2006	16.83
Pay 2007	17.17

Indiana		<u>Real</u> <u>Estate Loans</u>	<u>Operating</u> <u>Loans</u>	<u>Avg.</u>
2002	Jan.	7.22	7.33	
	April	7.08	7.28	
	July	6.84	7.21	
	Oct.	6.51	6.70	
	Average	6.91	7.13	7.02
2003	Jan.	6.36	6.61	
	April	6.04	6.43	
	July	6.12	6.41	
	Oct.	6.05	6.26	
	Average	6.14	6.43	6.29
2004	Jan.	5.87	6.22	
	April	6.23	6.39	
	July	6.28	6.57	
	Oct.	6.39	6.81	
	Average	6.19	6.50	6.35
2005	Jan.	6.63	7.07	
	April	6.74	7.33	
	July	7.02	7.68	
	Oct.	7.25	8.02	
	Average	6.91	7.53	7.22
2006	Jan.	7.48	8.30	
	April	7.85	8.76	
	July	7.82	8.73	
	Oct.	7.74	8.71	
	Average	7.72	8.63	8.18
2007	Jan.	7.67	8.61	
	April	7.70	8.65	
	July	7.53	8.42	
	Oct.	7.09	7.82	
	Average	7.50	8.38	7.94

**Source: Federal Reserve Bank of Chicago.
AgLetter (a quarterly newsletter)**

Letter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary

An unusual array of agricultural events in 2004 culminated in the largest annual increase, 12 percent, in the value of "good" agricultural land for the Seventh Federal Reserve District during the last 15 years. The quarterly gain in farmland values for the District was 3 percent in the fourth quarter of 2004, according to surveys returned by 278 agricultural bankers. As of January 1, 2005, half the respondents expected farmland values to continue rising over the next three months and half expected them to remain stable.

District bankers reported improved agricultural credit conditions, continuing a trend that started a year ago. Indexes of loan demand, loan repayment rates, and fund availability rose for every quarter of 2004, the first string of four consecutive quarterly increases since 1995-96. Moreover, loan renewals and extensions in the fourth quarter once again were lower than a year ago. Fewer banks required increased collateral than for October to December of 2003. Interest rates on agricultural loans continued to move up, adding more than 50 basis points in 2004. Loan-to-deposit ratios dipped slightly from the third quarter to almost 5 percentage points below the average ratio considered most desirable by the bankers. However, the 2004 improvements in agricultural credit conditions are unlikely to continue

in 2005, given already lower agricultural prices, increased input costs, and recent interest rate movements.

Farmland values

The 12 percent increase in 2004 District farmland values tied for the largest since 1979, only matched in 1988 (see chart 1). Nominal farmland values have risen 180 percent from the low established in 1986 for the District. The states of Indiana and Wisconsin showed the largest gains at 14 percent (see table and map below), their largest since 1979. Illinois land values increased 13 percent, its biggest increase since 1988. Iowa and Michigan had the smallest increases at 11 percent, their best results since the late 1990s.

The value of "good" agricultural land rose 3 percent, on average, for the District in the fourth quarter of 2004. Indiana exceeded the District average at 5 percent, while Michigan trailed at 1 percent. The surge in District farmland values in 2004 started with a 5 percent increase in the first quarter before ending with two quarters of 3 percent growth. There were several unusual factors that contributed to these increases.

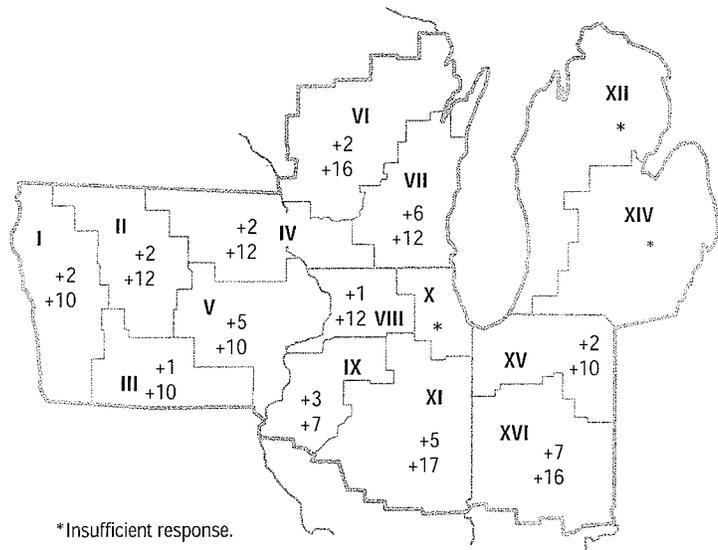
First, 2004 gains in farmland values reflected record net farm income for the U.S., as both crop and livestock producers saw higher margins. At \$73.7 billion, net farm income increased 25 percent in 2004 over the previous record set in 2003. For extended periods of the year, prices for the District's major agricultural products were well above the seasonal

Percent change in dollar value of "good" farmland

Top: October 1, 2004 to January 1, 2005

Bottom: January 1, 2004 to January 1, 2005

	October 1, 2004 to January 1, 2005	January 1, 2004 to January 1, 2005
Illinois	+3	+13
Indiana	+5	+14
Iowa	+3	+11
Michigan	+1	+11
Wisconsin	+3	+14
Seventh District	+3	+12



Credit conditions at Seventh District agricultural banks

	Loan demand	Fund availability	Loan repayment rates	Average loan-to-deposit ratio ¹	Interest rates on farm loans		
					Operating loans ¹	Feeder cattle ¹	Real estate ¹
	(index) ²	(index) ²	(index) ²	(percent)	(percent)	(percent)	(percent)
2002							
Jan-Mar	108	118	66	72.7	7.33	7.48	7.22
Apr-June	105	120	71	75.1	7.28	7.35	7.08
July-Sept	99	124	76	75.7	7.21	7.26	6.84
Oct-Dec	101	130	88	73.2	6.70	6.78	6.51
2003							
Jan-Mar	109	130	79	72.4	6.61	6.75	6.36
Apr-June	99	138	84	72.7	6.43	6.52	6.04
July-Sept	95	129	86	72.9	6.41	6.47	6.12
Oct-Dec	97	127	104	71.8	6.26	6.35	6.05
2004							
Jan-Mar	116	131	128	73.2	6.22	6.28	5.87
Apr-June	101	117	118	73.7	6.39	6.46	6.23
July-Sept	109	111	112	74.5	6.57	6.61	6.28
Oct-Dec	109	121	127	74.1	6.81	6.80	6.39

¹At end of period.

²Bankers responded to each item by indicating whether conditions during the current quarter were higher, lower, or the same as in the year-earlier period. The index numbers are computed by subtracting the percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

earlier. Almost 30 percent of the respondents reported higher fund availability and just 7 percent lower, moving the index of fund availability up to 121. This was the fourth consecutive year of increased availability of funds.

Still, the amount of collateral required rose a bit, and more banks tightened credit standards in the fourth quarter versus the previous year. Collateral requirements inched up at District banks, with 5 percent more raising than lowering the amount of collateral required from October to December 2004. Similarly, respondents indicated there was less tightening in credit standards for agricultural loans in the fourth quarter (25 percent versus 30 percent in 2003). Even with modest tightening of credit standards, only 1 percent of customers with operating credit are not likely to qualify for new credit this year from the responding banks.

The rise in interest rates for agricultural loans continued throughout 2004. As of January 1, 2005, the District average for interest rates on new operating loans was 6.39 percent, 59 basis points higher than the first quarter cyclical low. At an average of 6.81 percent, interest rates for farm real estate loans were up for a third consecutive quarter by a total of 52 basis points. Interest rates on agricultural loans were lowest in Illinois. The largest increases occurred in Wisconsin, which had the highest interest rate on operating loans.

Looking forward

In terms of the near future, the responding bankers tended to see higher levels of loan volumes, especially for operating and farm machinery loans. A third of the bankers reported expectations of higher non-real-estate loan volume in the first quarter of 2005, compared to only 9 percent projecting lower volume. Substantially more respondents expected higher volumes for operating and farm machinery loans rather than lower volumes (about 40 percent

versus 10 percent for both, respectively). Fifteen percent more bankers anticipated higher rather than lower real estate loan volume in the first quarter of 2005. Grain storage construction loans were also expected to increase in volume a bit. Marginally lower volumes were anticipated for feeder cattle, dairy, and Farm Service Agency (FSA) loans.

Respondents expected farmers to boost capital expenditures in the year ahead. The strongest outlook was for machinery and equipment, with 62 percent of the bankers seeing higher spending, as well as 46 percent for higher spending on trucks and automobiles. For buildings and facilities, 29 percent were looking for higher expenditures and just 10 percent lower levels. More than one-third of respondents (36 percent) expected expenditures on land purchases or improvements to be higher, while 10 percent expected such expenditures to be lower.

David B. Oppedahl, *Business economist*

AgLetter (ISSN 1080-8639) is published quarterly by the Research Department of the Federal Reserve Bank of Chicago. It is prepared by David B. Oppedahl, business economist, and members of the Bank's Research Department. The information used in the preparation of this publication is obtained from sources considered reliable, but its use does not constitute an endorsement of its accuracy or intent by the Federal Reserve Bank of Chicago.

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Letter

FARMLAND VALUES AND CREDIT CONDITIONS

Summary

The largest annual increase in farmland values, 16 percent, in almost three decades highlighted an amazing year for agriculture in the Seventh Federal Reserve District. The values of both crop and livestock production set records in 2007 for the U.S. and, in all likelihood, the District. Based on 265 surveys returned by District agricultural bankers, the quarterly rise in the value of "good" agricultural land was 6 percent in the fourth quarter of 2007. Over half of the respondents expected farmland values to keep going up in the first quarter of 2008.

Agricultural credit conditions in the District strengthened in the fourth quarter of 2007. The index of non-real-estate farm loan repayment rates shot up to the highest value on record, while loan renewals and extensions dropped from a year ago. The index of funds availability was higher than at any point in the last four years. Loan demand softened in the fourth quarter of 2007, but was still higher than the previous year. Agricultural interest rates fell to their lowest levels in two years. Loan-to-deposit ratios averaged 77.2 percent for the fourth quarter of 2007, with 59 percent of banks below their desired ratio.

Farmland values

With a 16 percent annual increase for 2007 in the value of "good" agricultural land in the District, annual gains averaged 12 percent from 2004 through 2007. Adjusted for inflation, annual farmland values still rose an average of 8 percent per year over the past four years, versus an average of 2 percent during the previous 15 years (see chart 1 on next page). Iowa led the District with an 18 percent annual increase (see table and map below). Indiana was next with a 16 percent annual gain, followed by Illinois and Michigan with 15 percent annual gains. Wisconsin trailed with an 11 percent annual increase in farmland values. All District states had similar gains in farmland values in the fourth quarter as they had experienced in the third quarter, though some were slightly stronger.

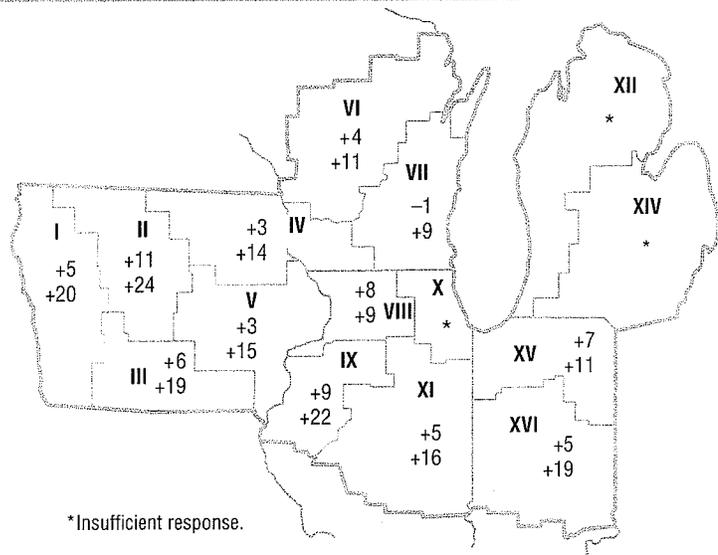
Higher net farm income boosted farmland values toward the end of 2007 as corn and soybean prices moved even higher than a year ago. December cash corn prices rose to \$3.76 per bushel, 25 percent above those in December 2006. Cash soybean prices jumped to \$10.00 per bushel in December, 62 percent higher than the previous year's prices. National production estimates for 2007 from the U.S. Department of Agriculture (USDA) were a record 13.1 billion bushels for corn and 2.59 billion bushels for soybeans. The harvest was 24 percent above that of 2006 for corn and 19 percent below that of 2006 for soybeans.

Percent change in dollar value of "good" farmland

Top: October 1, 2007 to January 1, 2008

Bottom: January 1, 2007 to January 1, 2008

	October 1, 2007 to January 1, 2008	January 1, 2007 to January 1, 2008
Illinois	+6	+15
Indiana	+6	+16
Iowa	+6	+18
Michigan	+9	+15
Wisconsin	+2	+11
Seventh District	+6	+16



*Insufficient response.

Credit conditions at Seventh District agricultural banks

	Loan demand	Funds availability	Loan repayment rates	Average loan-to-deposit ratio	Interest rates on farm loans		
					Operating loans ^a	Feeder cattle ^a	Real estate ^a
	(index) ^b	(index) ^b	(index) ^b	(percent)	(percent)	(percent)	(percent)
2005							
Jan-Mar	117	112	116	74.4	7.07	7.08	6.63
Apr-June	119	101	103	76.3	7.33	7.30	6.74
July-Sept	115	97	87	76.9	7.68	7.65	7.02
Oct-Dec	120	110	90	75.8	8.02	7.95	7.25
2006							
Jan-Mar	131	102	87	76.7	8.30	8.27	7.48
Apr-June	115	101	85	78.0	8.76	8.66	7.85
July-Sept	124	95	87	79.1	8.73	8.70	7.82
Oct-Dec	109	116	130	76.6	8.71	8.70	7.74
2007							
Jan-Mar	128	113	131	78.4	8.61	8.60	7.67
Apr-June	121	115	117	77.8	8.65	8.63	7.70
July-Sept	118	118	122	78.1	8.42	8.40	7.53
Oct-Dec	110	125	148	77.2	7.82	7.89	7.09

Note: Historical data on Seventh District agricultural credit conditions is available for download from the *AgLetter* homepage, www.chicagofed.org/economic_research_and_data/ag_letter.cfm.

^aAt end of period.

^bBankers responded to each item by indicating whether conditions during the current quarter were higher, lower, or the same as in the year-earlier period. The index numbers are computed by subtracting the percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

reporting higher funds availability and 5 percent lower. Collateral requirements were slightly tighter at District banks, as 11 percent raised the amount of collateral required during the October–December period in 2007. More bankers than a year ago indicated a tightening of credit standards for agricultural loans in the fourth quarter versus the previous year, but there also were more bankers who reported easing standards. As was the case the previous year, only 1 percent of District customers with operating credit were not likely to qualify for new credit in 2008, according to respondents.

Interest rates for agricultural loans declined to the lowest levels in two years. As of January 1, 2008, the District averages for interest rates were 7.82 percent on new operating loans and 7.09 percent on farm real estate loans. Interest rates on agricultural loans were lowest in Illinois (7.49 percent on operating loans and 6.93 percent on farm mortgages). Interest rates on agricultural loans were highest in Michigan (8.10 percent on operating loans and 7.44 percent on farm mortgages).

Looking forward

For January, February, and March of 2008, 41 percent of the respondents expected higher non-real-estate loan volumes, while 16 percent expected lower volumes. Higher loan volumes were anticipated for operating, farm machinery, and grain storage construction loans. With little change in dairy loans, lower volumes were anticipated for feeder cattle loans and loans guaranteed by the Farm Service Agency. The volume of mortgages on agricultural real estate will continue to grow, with 32 percent of the

bankers expecting higher real estate loan volumes in the first quarter of 2008 and 9 percent expecting lower volumes.

Even more strongly than last year, respondents forecast this year's capital expenditures by farmers to increase from the previous year's levels. With 55 percent expecting higher spending on land purchases, improvements, buildings, and facilities in 2008 than in 2007, the agricultural sector contrasted sharply with the downturn in residential real estate and construction. And with only 2 percent of respondents expecting lower purchases, 83 percent of the bankers thought purchases of machinery and equipment would climb in 2008, and 67 percent thought that truck and auto purchases by farmers would rise.

David B. Oppedahl, business economist

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Income Approach: November, Annual Average, & Marketing Year Average Prices

Line #	Column	2002		2003		2004		2005		2006		2007		Source or Formula:
		A	B	C	D	E	F	G	H	I	J	K	L	
1	Yield	121	41.5	146	38	168	51.5	154	49	157	50	155	45	IASS - Crop Summary
2	Price - November	2.41	5.53	2.25	7.25	1.81	5.22	1.71	5.58	3.03	6.13	3.68	9.65	IASS - Crop Prices
3	Price - Annual Avg.	2.21	5.06	2.36	6.26	2.49	7.63	1.97	6.02	2.39	5.82	3.52	8.01	DLGF Calculation
4	Price - Market Avg.	1.98	4.42	2.41	5.55	2.53	7.67	1.99	5.66	2.00	5.78	3.17	6.53	IASS - Crop Prices
5	GI - November	291.61	229.50	328.50	275.50	304.08	268.83	263.34	273.42	475.71	306.50	570.40	434.25	Line 1 times Line 2
6	GI - Annual Avg.	267.41	209.99	344.56	237.88	418.32	392.95	303.38	294.98	375.23	291.00	545.60	360.45	Line 1 times Line 3
7	GI - Market Avg.	239.58	183.43	351.86	210.90	425.04	395.01	306.46	277.34	314.00	289.00	491.35	293.85	Line 1 times Line 4
8	AA v Nov	-24.20	-19.51	16.06	-37.62	114.24	124.12	40.04	21.56	-100.48	-15.50	-24.80	-73.80	Line 6 minus Line 5
9	MA v Nov	-52.03	-46.07	23.36	-64.60	120.96	126.18	43.12	3.92	-161.71	-17.50	-79.05	-140.40	Line 7 minus Line 5
10	NRTL - November	44		82		54		41		123		235		DLGF Calculation
11	NRTL - Annual Avg	22		71		173		72		65		186		Line 10 + or - Avg. Line 8
12	NRTL - Market Avg	-5		61		178		65		33		125		Line 10 + or - Avg. Line 9
13	NRTL Average	20		71		135		59		74		182		Average Lines 10, 11, & 12
14	FRBC RE Rate	0.0691		0.0614		0.0619		0.0691		0.0772		0.0750		Fed. Res. Bank of Chicago
15	FRBC OP Rate	0.0713		0.0643		0.0650		0.0753		0.0863		0.0838		Fed. Res. Bank of Chicago
16	Avg. FRBC Rate	0.0702		0.0629		0.0635		0.0722		0.0818		0.0794		Average Lines 14 & 15
17	Operating Market Value In Use	285		1,129		2,126		817		905		2,292		Line 13 / Line 16

NRTL = Net Return To Land

FRBC = Federal Reserve Bank of Chicago

Doster/Hule - Table 1		C		D		E		F		G		H		I		J		K		L		K		L		Source of Information	
Updated-September, 2009		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013			
Line #		Corn	Beans																								
1	Yield	121	41.5	146	38	168	51.5	154	49	157	50	155	45	155	45	155	45	155	45	155	45	155	45	155	45	IN Ag. Stats. Service	
2	Price - Nov.	2.41	5.53	2.25	7.25	1.81	5.22	1.71	5.58	3.03	6.13	3.68	9.65	3.68	9.65	3.68	9.65	3.68	9.65	3.68	9.65	3.68	9.65	3.68	9.65	IN Ag. Stats. Service	
3	Sales	292	229	329	276	304	269	283	273	476	307	570	434	570	434	570	434	570	434	570	434	570	434	570	434	Line 1 X Line 2	
4	Less Variable Costs	147	97	154	99	171	106	184	114	222	125	239	120	239	120	239	120	239	120	239	120	239	120	239	120	239	Purdue Crop Guide
5	Contribution Margin	145	132	175	177	133	163	79	159	254	182	331	314	331	314	331	314	331	314	331	314	331	314	331	314	Line 3 - Line 4	
6	Plus Gov't Pymt.	25		33		41		71		41		23		23		23		23		23		23		23		IN Ag. Stats. Service	
7	Total Contribution Margin	151		192		168		155		238		334		155		238		334		155		238		334		Lines 5 + 6 / 2	
Less Overhead:																											
8	Annual Machinery	52		52		52		52		52		52		52		52		52		52		52		52		Purdue Crop Guide	
9	Drying/Handling	7		7		7		7		7		7		7		7		7		7		7		7		Purdue Crop Guide	
10	Family/Hired Labor	37		37		37		39		39		30		39		30		39		39		30		39		Purdue Crop Guide	
11	Real Estate Tax	11		14		18		16		17		17		16		17		17		17		17		17		DLCF Study	
12	Net Return To Land - Nov.	44		82		54		41		123		235		41		123		235		41		123		235		Line 7 - 8,9,10, 11	

Source for Calculation: Doster/Hule Publication titled "A Method for Assessing Indiana Cropland-An Income Approach to Value" dated June 24, 1999 (See Table 1)

Indiana Corn Yields:**Indiana Soybean Yields:**

1975	98
1976	110
1977	102
1978	108
1979	112
1980	96
1981	108
1982	126
1983	73
1984	117
1985	123
1986	122
1987	135
1988	83
1989	133
1990	129
1991	92
1992	147
1993	132
1994	144
1995	113
1996	123
1997	122
1998	137
1999	132
2000	146
2001	156

1975	33.5
1976	34
1977	37
1978	34.5
1979	36
1980	36
1981	33
1982	38.5
1983	31
1984	34.5
1985	41.5
1986	37
1987	40
1988	27.5
1989	36.5
1990	41
1991	39
1992	43
1993	46
1994	47
1995	39.5
1996	38
1997	43.5
1998	42
1999	39
2000	46
2001	49

2002	121
2003	146
2004	168
2005	154
2006	157
2007	155

2002	41.5
2003	38
2004	51.5
2005	49
2006	50
2007	45

2008 IASS has not published yet.

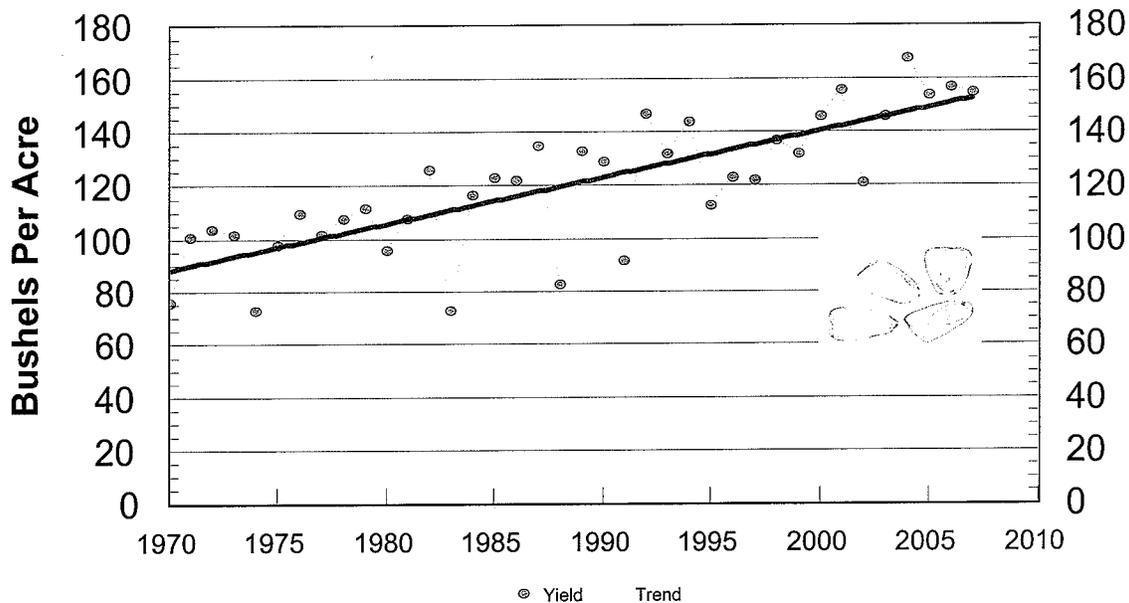
Source: Indiana Agricultural Statistics Service

CROP SUMMARY

CORN FORECAST AND FINAL YIELD INDIANA, 1984-2007

Year	August Forecast	September Forecast	October Forecast	November Forecast	Final Yield Per Acre
	Yield (Bu)	Yield (Bu)	Yield (Bu)	Yield (Bu)	(Bushels)
1984	112	114	114	115	117
1985	115	123	124	124	123
1986	132	129	127	124	122
1987	135	135	135	135	135
1988	70	74	74	78	83
1989	123	128	130	134	133
1990	128	132	132	130	129
1991	98	93	94	94	92
1992	130	130	133	143	147
1993	140	136	133	128	132
1994	132	132	137	141	144
1995	135	125	119	116	113
1996	118	118	120	124	123
1997	127	122	120	120	122
1998	136	139	137	137	137
1999	130	128	128	130	132
2000	155	155	151	147	146
2001	147	152	160	160	156
2002	124	119	117	117	121
2003	144	145	148	150	146
2004	168	168	168	168	168
2005	145	149	149	151	154
2006	167	167	165	159	157
2007	157	160	158	158	155

Corn Yield Trend Indiana 1970 - 2007

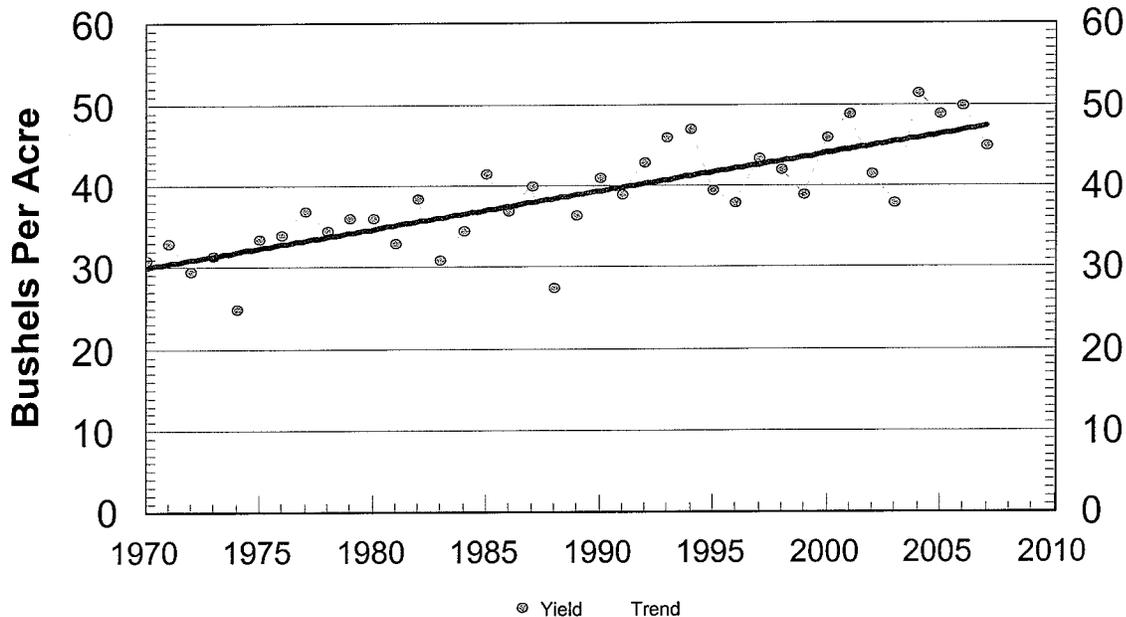


CROP SUMMARY

SOYBEAN FORECAST AND FINAL YIELD INDIANA, 1984-2007

Year	August Forecast	September Forecast	October Forecast	November Forecast	Final Yield Per Acre
Yield (Bu)	Yield (Bu)	Yield (Bu)	Yield (Bu)	Yield (Bu)	(Bushels)
1984	35.0	36.0	35.0	34.0	34.5
1985	35.0	38.0	40.0	41.0	41.5
1986	40.0	39.0	39.0	38.0	37.0
1987	42.0	41.0	40.0	40.0	40.0
1988	29.0	30.0	30.0	28.0	27.5
1989	39.0	39.0	39.0	39.0	36.5
1990	36.0	37.0	39.0	41.0	41.0
1991	35.0	35.0	38.0	39.0	39.0
1992	41.0	41.0	41.0	42.0	43.0
1993	45.0	47.0	47.0	45.0	46.0
1994	43.0	43.0	46.0	46.0	47.0
1995	43.0	44.0	40.0	39.0	39.5
1996	35.0	35.0	38.0	39.0	38.0
1997	44.0	42.0	42.0	44.0	43.5
1998	45.0	45.0	42.0	42.0	42.0
1999	41.0	40.0	39.0	38.0	39.0
2000	46.0	46.0	46.0	46.0	46.0
2001	46.0	48.0	49.0	49.0	49.0
2002	41.0	41.0	40.0	41.0	41.5
2003	43.0	43.0	40.0	38.0	38.0
2004	52.0	52.0	51.5	51.5	51.5
2005	46.0	45.0	46.0	48.0	49.0
2006	49.0	50.0	51.0	51.0	50.0
2007	47.0	43.0	43.0	44.0	45.0

Soybean Yield Trend Indiana 1970 - 2007



Corn Prices

Source: Indiana Agricultural Statistics

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Average	Marketing Average *
1988	1.88	1.91	1.97	1.99	2.10	2.51	2.90	2.86	2.78	2.62	2.56	2.65	2.39	2.08
1989	2.72	2.64	2.70	2.66	2.70	2.63	2.65	2.48	2.38	2.32	2.28	2.37	2.54	2.65
1990	2.46	2.43	2.49	2.68	2.81	2.85	2.81	2.75	2.44	2.21	2.18	2.25	2.53	2.47
1991	2.35	2.37	2.43	2.42	2.46	2.37	2.34	2.41	2.37	2.36	2.36	2.44	2.39	2.31
1992	2.55	2.55	2.61	2.58	2.55	2.55	2.36	2.18	2.18	1.92	1.95	1.96	2.33	2.45
1993	2.06	2.04	2.17	2.23	2.20	2.17	2.31	2.37	2.26	2.26	2.52	2.73	2.28	2.09
1994	2.73	2.78	2.76	2.67	2.63	2.66	2.27	2.12	2.18	1.98	1.93	2.12	2.40	2.51
1995	2.25	2.27	2.34	2.41	2.45	2.56	2.76	2.73	2.76	2.85	3.11	3.33	2.65	2.25
1996	3.20	3.42	3.81	4.31	4.52	4.70	4.70	4.55	3.63	2.80	2.69	2.64	3.75	3.38
1997	2.77	2.73	2.86	2.96	2.86	2.73	2.59	2.60	2.60	2.62	2.60	2.61	2.71	2.78
1998	2.66	2.62	2.61	2.46	2.36	2.29	2.17	1.91	1.96	1.97	2.06	2.23	2.28	2.53
1999	2.26	2.20	2.22	2.24	2.15	2.12	1.94	1.97	1.82	1.74	1.75	1.89	2.03	2.11
2000	1.97	2.06	2.08	2.15	2.15	1.95	1.65	1.63	1.67	1.75	1.83	2.06	1.91	1.88
2001	2.03	2.01	2.02	1.98	1.95	1.84	1.97	2.01	1.93	1.83	1.83	1.92	1.94	1.90
2002	1.98	1.99	1.91	1.91	2.05	2.07	2.25	2.58	2.55	2.38	2.41	2.43	2.21	1.98
2003	2.42	2.44	2.44	2.47	2.49	2.44	2.28	2.25	2.27	2.15	2.25	2.46	2.36	2.41
2004	2.50	2.75	2.96	3.07	3.08	2.80	2.57	2.44	2.07	1.88	1.81	1.95	2.49	2.53
2005	2.09	2.01	2.01	1.96	2.02	2.07	2.20	1.97	1.80	1.72	1.71	2.04	1.97	1.99
2006	2.09	2.07	2.15	2.20	2.26	2.21	2.31	2.08	2.32	2.70	3.03	3.23	2.39	2.00
2007	3.16	3.53	3.64	3.54	3.65	3.73	3.36	3.27	3.33	3.34	3.68	4.03	3.52	3.17
2008	4.16	4.61	4.96	5.49	5.82	5.89								

*Marketing average is Sept. of the previous year to Aug. in the current year.

IASS has not published this information yet.

Soybean Prices

Source: Indiana Agricultural Statistics

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Average	Marketing Average *
1988	5.89	5.93	6.29	6.81	7.24	8.71	8.95	8.60	8.09	7.64	7.46	7.71	7.44	5.94
1989	7.76	7.44	7.64	7.32	7.37	7.18	6.95	6.26	5.83	5.62	5.74	5.77	6.74	7.55
1990	5.95	5.75	5.77	5.98	6.14	6.08	6.16	6.13	6.08	5.91	5.77	5.74	5.96	5.79
1991	5.76	5.78	5.76	5.82	5.74	5.57	5.40	5.66	5.76	5.52	5.52	5.51	5.65	5.81
1992	5.60	5.69	5.81	5.75	5.96	6.05	5.69	5.52	5.44	5.25	5.37	5.52	5.64	5.68
1993	5.66	5.65	5.77	5.87	5.94	6.03	6.82	6.84	6.17	5.97	6.42	6.75	6.16	5.61
1994	6.67	6.76	6.82	6.70	6.89	6.74	6.19	5.70	5.49	5.33	5.34	5.54	6.18	6.31
1995	5.54	5.50	5.66	5.68	5.70	5.86	6.10	5.98	6.07	6.24	6.61	6.98	5.99	5.53
1996	6.91	7.16	7.13	7.65	7.95	7.72	7.82	8.10	8.02	6.94	6.90	6.98	7.44	6.73
1997	7.31	7.34	7.94	8.38	8.60	8.22	7.71	7.18	6.54	6.62	6.88	6.68	7.45	7.34
1998	6.80	6.73	6.57	6.37	6.41	6.42	6.38	5.74	5.24	5.23	5.49	5.51	6.07	6.59
1999	5.41	4.94	4.71	4.77	4.63	4.50	4.28	4.55	4.54	4.58	4.56	4.56	4.67	5.05
2000	4.65	4.90	5.06	5.18	5.27	5.11	4.62	4.63	4.71	4.51	4.57	4.93	4.85	4.71
2001	4.74	4.53	4.52	4.25	4.43	4.62	4.98	5.15	4.60	4.17	4.18	4.25	4.54	4.61
2002	4.29	4.34	4.56	4.63	4.79	5.05	5.51	5.67	5.53	5.24	5.53	5.61	5.06	4.42
2003	5.62	5.69	5.70	5.92	6.28	6.15	5.87	5.84	6.49	6.90	7.25	7.44	6.26	5.55
2004	7.38	8.38	9.43	9.76	9.62	9.45	8.89	7.18	5.51	5.24	5.22	5.47	7.63	7.67
2005	5.57	5.46	6.02	5.99	6.32	6.76	6.93	6.29	5.76	5.60	5.58	6.01	6.02	5.66
2006	6.06	5.83	5.76	5.69	5.83	5.80	5.85	5.53	5.40	5.63	6.13	6.38	5.82	5.78
2007	6.44	6.95	7.17	7.13	7.36	7.83	7.97	8.03	8.51	8.82	9.65	10.30	8.01	6.53
2008	10.20	12.40	11.80	12.30	12.80	14.50								

IASS has not published this information yet.

*Marketing average is Sept. of the previous year to Aug. in the current year.

CROP PRICES

MONTHLY PRICES RECEIVED BY FARMERS, CROPS INDIANA, 2001-2008 ^{1/}

Year	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Marketing Year Avg.
Corn (Dollars per Bushel)													
2001-02	1.93	1.83	1.83	1.92	1.98	1.99	1.91	1.91	2.05	2.07	2.25	2.58	1.98
2002-03	2.55	2.38	2.41	2.43	2.42	2.44	2.44	2.47	2.49	2.44	2.28	2.25	2.41
2003-04	2.27	2.15	2.25	2.46	2.50	2.75	2.96	3.07	3.08	2.80	2.57	2.44	2.53
2004-05	2.07	1.88	1.81	1.95	2.09	2.01	2.01	1.96	2.02	2.07	2.20	1.97	1.99
2005-06	1.80	1.72	1.71	2.04	2.09	2.07	2.15	2.20	2.26	2.21	2.31	2.08	2.00
2006-07	2.32	2.70	3.03	3.23	3.16	3.53	3.64	3.54	3.65	3.73	3.36	3.27	3.17
2007-08	3.33	3.34	3.68	4.03	4.16	4.61	4.96	5.49	5.82	5.89	<u>2/</u>	<u>2/</u>	4.05
Soybeans (Dollars per Bushel)													
2001-02	4.60	4.17	4.18	4.25	4.29	4.34	4.56	4.63	4.79	5.05	5.51	5.67	4.42
2002-03	5.53	5.24	5.53	5.61	5.62	5.69	5.70	5.92	6.28	6.15	5.87	5.84	5.55
2003-04	6.49	6.90	7.25	7.44	7.38	8.38	9.43	9.76	9.62	9.45	8.89	7.18	7.67
2004-05	5.51	5.24	5.22	5.47	5.57	5.46	6.02	5.99	6.32	6.76	6.93	6.29	5.66
2005-06	5.76	5.60	5.58	6.01	6.06	5.83	5.76	5.69	5.83	5.80	5.85	5.53	5.78
2006-07	5.40	5.63	6.13	6.38	6.44	6.95	7.17	7.13	7.36	7.83	7.97	8.03	6.53
2007-08	8.51	8.82	9.65	10.30	10.20	12.40	11.80	12.30	12.80	14.50	<u>2/</u>	<u>2/</u>	10.50
Year	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Marketing Year Avg.
Wheat (Dollars per Bushel)													
2001-02	2.31	2.34	2.51	2.37	3.13	2.89	2.88	3.33	3.20	3.94	3.46	3.88	2.41
2002-03	2.90	3.06	3.44	3.69	3.89	4.03	3.76	3.32	3.04	3.03	3.03	3.08	3.18
2003-04	3.05	3.07	3.35	3.35	3.53	3.71	4.01	3.91	3.63	3.84	3.81	3.87	3.21
2004-05	3.37	3.28	3.01	3.09	2.90	2.85	3.06	3.24	2.98	3.25	2.97	3.08	3.24
2005-06	3.16	3.18	2.92	2.88	3.03	3.02	3.04	3.21	3.34	3.29	2.98	3.43	3.15
2006-07	3.34	3.18	2.95	3.31	3.56	4.38	4.46	4.08	4.16	4.05	4.07	4.54	3.41
2007-08	4.90	5.10	6.16	7.16	8.02	5.52	7.59	7.70	9.06	9.54	10.70	6.36	5.45
^{1/} Weighted monthly average for market year. 2007 and 2008 are preliminary. ^{2/} Data not available.													

2002 PURDUE CROP GUIDE*
ESTIMATED PER ACRE CROP BUDGETS

Crop Budgets for Three Yield Levels¹

	Low Yield Soil			Average Yield Soil						High Yield Soil					
	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans
Expected yield in bushels per acre ²	104.3	112.1	37.5	61.6	21.3	129.1	138.8	46.5	69.4	26.4	158.8	170.8	57.2	76.9	32.4
Harvest price per bushel ³	\$2.10	\$2.10	\$5.40	\$2.56	\$5.40	\$2.10	\$2.10	\$5.40	\$2.56	\$5.40	\$2.10	\$2.10	\$5.40	\$2.56	\$5.40
Crop sales per acre	\$219	\$235	\$203	\$158	\$115	\$271	\$291	\$251	\$178	\$143	\$333	\$359	\$309	\$197	\$175
Less variable costs per acre ⁴ :															
Fertilizer ⁵	\$38	\$35	\$17	\$30	\$11	\$47	\$45	\$20	\$35	\$12	\$57	\$56	\$24	\$40	\$15
Seed ⁶	26	26	30	13	35	30	30	30	13	35	30	30	30	13	35
Chemicals ⁷	31	16	14	N/A	12	34	18	14	N/A	12	38	23	14	N/A	12
Dryer fuel @ \$.80/gallon and handling	12	10	1	N/A	2	15	13	1	N/A	3	18	15	1	N/A	3
Fuel @ \$.95/gallon	7	7	7	4	3	8	8	8	4	3	9	9	9	4	3
Repairs ⁸	8	8	8	4	4	9	9	9	5	4	10	10	10	5	4
Hauling	6	7	2	4	1	8	8	3	4	2	10	10	3	5	2
Interest ⁹	5	4	3	2	3	6	5	4	3	3	7	6	4	3	3
Insurance/misc.	11	11	8	7	4	11	11	8	7	4	11	11	8	7	4
Total variable costs per acre	\$144	\$124	\$90	\$64	\$75	\$168	\$147	\$92	\$71	\$78	\$190	\$170	\$103	\$77	\$81
Contribution margin ¹⁰ (Sales - variable costs) Per acre	\$75	\$111	\$113	\$94	\$40	\$103	\$144	\$154	\$107	\$65	\$143	\$189	\$206	\$120	\$94

¹ Estimated yields and costs are for normal yields with average management for three different soils representing low, average, and high productivity.

² Average yield based on timely plant/harvest date, except soybean double crop yield which is based on July 1 plant date. Continuous corn, soybean & wheat yields are a percent of rotation corn yield — continuous corn 93%, drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%), wheat 55% on low yield, 50% on average yield and 45% on high yield soils, and double crop soybeans (South-central Indiana) 19% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans and Wheat").

³ Harvest prices are the higher of December 31, 2001 CBOT closing prices for July wheat -\$.30 basis, December corn -\$.25 basis, and November beans-\$.30 basis or the Tippecanoe County, 2001 loan rate.

⁴ Seed, fertilizer, and chemical prices are early January quotes.

⁵ Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O-lime by crop and soil: Continuous corn, 116-39-48-347, 150-48-55-449, 190-59-63-570; rotation corn, 97-42-50-290, 133-51-58-398, 176-63-66-529; rotation beans, 0-30-72-0, 0-37-85-0, 0-45-100-0; wheat, 60-39-43-181, 74-44-46-227, 87-48-48-261; double crop beans, 0-17-50-0, 0-21-57-0, 0-26-65-0. Fertilizer prices per lb.: NH₃ @ \$.16; urea @ \$.23; P₂O₅ @ \$.23, after accounting for nitrogen @ \$.16 in 18-46-0; K₂O @ \$.13; lime @ \$14/ton. 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range. The potash recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC. On each soil, these estimated yields may vary ± 10% for weather, ± 10% for management, and ± 10% for plant/harvest date.

⁶ Add \$7 per acre for Bt corn seed. Soybean seed prices include Round-up Ready varieties.

⁷ Corn insecticide @ \$16 per acre is included for continuous corn, and should be added to rotation corn in north Indiana.

⁸ Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be \$6-10 higher, and indirect machinery replacement costs below will be lower.

⁹ Interest is based on 6.5% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs, and all the insurance/misc.

¹⁰ Contribution margin is the return to the unpaid operator labor/management, machinery services, and land resources. The contribution margins, not shown above, are \$95, \$132, and \$177 for second year drill beans on low, average, and high yield soils.

*By C. L. Dobbins, Miller, W. A., Doster, D. H., Agricultural Economics; Christmas, E. P., Nielsen, R. L., Agronomy

Cooperative Extension work in Agriculture and Home Economics, state of Indiana, Purdue University, and U.S. Department of Agriculture cooperating; D. C. Petritz, Director, West Lafayette, IN. Issued in furtherance of the acts of May 8 and June 30, 1914. The Cooperative Extension Service of Purdue University is an equal opportunity/equal access institution.

Purdue Crop Cost & Return Guide January 2003
Table 1. Estimated Per Acre Crop Budgets

	Crop Budgets for Three Yield Levels ¹																	
	Miami (Low Yield)				Crosby (Average Yield)				Brookston (High Yield)									
	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans
Expected yield per acre ²	105.4	113.4	37.9	34.1	62.3	21.5	130.5	140.3	47.0	42.3	70.2	26.7	160.6	172.7	57.9	52.1	77.7	32.8
Harvest price ³	\$2.16	\$2.16	\$4.83	\$4.83	\$2.71	\$4.83	\$2.16	\$2.16	\$4.83	\$2.71	\$4.83	\$1.29	\$3.47	\$3.73	\$2.80	\$2.82	\$2.71	\$4.83
Market Revenue	\$228	\$245	\$183	\$165	\$169	\$104	\$282	\$303	\$227	\$204	\$190	\$129	\$347	\$373	\$280	\$252	\$211	\$158
Loan Deficiency Payment (LDP) ⁴	0	0	12	11	0	7	0	0	15	13	0	8	0	0	18	16	0	10
Total revenue	\$228	\$245	\$195	\$176	\$169	\$111	\$282	\$303	\$242	\$217	\$190	\$137	\$347	\$373	\$298	\$268	\$211	\$168
Less variable costs ⁵																		
Fertilizer ⁶	\$42	\$38	\$16	\$15	\$31	\$10	\$52	\$49	\$20	\$18	\$36	\$12	\$64	\$63	\$24	\$21	\$41	\$14
Seed ⁷	26	26	30	30	16	35	30	30	30	30	16	35	30	30	30	30	16	35
Chemicals ⁸	31	16	15	15	N/A	13	34	18	15	15	N/A	13	39	23	15	15	N/A	13
Dryer Fuel & Handling	14	12	1	1	N/A	2	17	15	1	1	N/A	3	22	18	1	1	N/A	3
Machinery Fuel	8	8	8	8	5	4	10	10	10	5	4	4	11	11	10	10	5	4
Machinery Repairs ⁹	8	8	8	8	4	4	9	9	9	9	5	4	10	10	10	10	5	4
Hauling	6	7	2	2	4	1	8	8	3	3	4	2	10	10	3	3	5	2
Interest ¹⁰	4	4	3	3	2	3	5	4	3	3	2	3	6	5	3	3	3	3
Insurance/misc.	11	11	8	8	7	4	11	11	8	8	8	4	11	11	8	8	8	4
Total variable cost	\$150	\$130	\$91	\$90	\$69	\$76	\$176	\$154	\$99	\$87	\$76	\$80	\$203	\$181	\$105	\$102	\$63	\$82
Contribution margin ¹¹ (Revenue - Variable costs) per acre	\$78	\$115	\$104	\$86	\$100	\$35	\$106	\$149	\$143	\$120	\$114	\$57	\$144	\$192	\$193	\$166	\$128	\$86

¹Estimated yields and costs are for normal yields with average management for three different soils representing low, average, and high productivity. On each soil, these estimated yields may vary + 10% for management, and ± 10% for plant/harvest date. These yields assume normal weather conditions.

²Average yield based on timely plant/harvest date, except soybean double crop yield which is based on July 1 plant date. Continuous corn, soybean & wheat yields are a percent of rotation corn yield - continuous corn 93%, drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%), wheat 55% on low yield, 50% on average yield, and 45% on high yield soils, and double crop soybeans (South-central Indiana) 19% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans, and Wheat")

³Harvest corn price is closing December 2003 CBOT futures price on December 27, 2002 less \$0.25 basis. Harvest soybean price is closing November 2003 CBOT price on December 27, 2002, less \$0.30 basis. Harvest wheat price is closing July 2003 CBOT price on December 27, 2002, less \$0.30 basis.

⁴Loan Deficiency Payment is paid on all bushels produced. The per bushel payment is the amount by which the loan rate exceeds the market price. Loan rates are \$2.05 for corn, \$5.14 for soybeans, and \$2.52 for wheat.

⁵Seed, fertilizer, and chemical prices are early January 2003 quotes.

⁶Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O-lime by crop and soil: Continuous corn, 117-39-48-352, 152-48-55-454, 192-59-63-577; rotation corn, 98-42-51-294, 135-52-58-407, 179-64-67-536; rotation beans, 0-30-73-0, 0-37-86-0, 0-46-101-0; wheat, 62-39-43-185, 75-44-46-227, 89-49-49-265; double crop beans, 0-17-50-0, 0-21-57-0, 0-26-66-0. Fertilizer prices per lb.: NH₃ @ \$.19; urea @ \$.25; P₂O₅ @ \$.22; K₂O @ \$.13; lime @ \$14/ton. 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range. The potash recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC.

⁷Add \$7 per acre for Bt corn seed. Soybean seed prices include round-up Ready varieties

⁸Corn insecticide @ \$16 per acre is included for continuous corn and should be added to rotation corn in northern Indiana.

⁹Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be \$6-10 higher, and indirect machinery costs will be lower.

¹⁰Interest is based on 5.5% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs, and all the insurance/misc.

¹¹Contribution margin is the return to the unpaid operator/ labor/management, machinery services, and land resources.

Purdue Crop Cost & Return Guide January 2003
Table 2. Estimated Per Farm Crop Budgets For 2003 - January Estimates
 Effect on Earnings for Each of Four Crop Rotations on Three Soil Types Using Similar Machinery and Labor When Farm Size is Adjusted to Permit Timely Fieldwork¹

Farm Acres	(Miami) Low Yield Soils				(Crosby) Average Yield Soils				(Brookston) High Yield Soils			
	900 c-c	1000 c-b	1200 c-b, c-w	1200 c-b, c-w, dc	900 c-c	1000 c-b	1200 c-b, c-w	1200 c-b, c-w, dc	900 c-c	1000 c-b	1200 c-b, c-w	1200 c-b, c-w, dc
Crop contribution margin ²	\$70,200	\$109,500	\$130,600	\$137,600	\$95,400	\$146,000	\$169,400	\$180,800	\$129,600	\$192,500	\$218,000	\$235,200
Government payment ³	24,372	22,855	32,508	32,508	28,773	27,085	37,958	37,958	35,532	33,450	45,612	45,612
Total contribution margin	\$94,572	\$132,355	\$163,108	\$170,108	\$124,173	\$173,085	\$207,358	\$218,758	\$165,132	\$225,950	\$263,612	\$280,812
Annual overhead costs:												
Machinery replacement ⁴	45,000	48,500	48,500	49,000	48,600	52,100	52,100	52,600	54,000	57,500	57,500	58,000
Drying/handling	6,300	6,300	6,300	6,300	7,200	7,200	7,200	7,200	8,100	8,100	8,100	8,100
Family and hired labor ⁵	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
Land ⁶	\$90,900	\$101,000	\$121,200	\$121,200	\$112,500	\$125,000	\$150,000	\$150,000	\$138,600	\$154,000	\$184,800	\$184,800
Earnings or (losses)	\$ (84,628)	\$ (60,445)	\$ (49,892)	\$ (43,392)	\$ (81,127)	\$ (48,215)	\$ (38,942)	\$ (28,042)	\$ (72,568)	\$ (30,650)	\$ (23,788)	\$ (7,088)

¹Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 acres rotation corn - 500 acres soybeans; c-b, c-w = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat; c-b, c-w, dc = 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc).

²Crops contribution margin is per acre contribution margin from Table 1 times number of acres.

³Government payment includes the direct payment and the counter cyclical payment. The per bushel direct payment rate is \$0.28 for corn, \$0.44 for soybeans and \$0.54 for wheat. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils. Direct payment yields for wheat were 45.8, 49.3, 55.5 on low, average, and high soils. The counter cyclical payments were based on a target price of \$2.60 for corn, \$5.80 for soybeans, and \$3.86 for wheat. The average marketing year price assumed was \$2.27 for corn, \$5.07 for soybeans, and \$2.90 for wheat. The counter cyclical yields for corn were 108.1, 133.4, and 164.1 for low, average, and high soils. The counter cyclical yields for soybeans were 36.2, 44.7, and 55.0 for low, average and high soils. The counter cyclical yields for wheat were 59.5, 66.7, 73.8 for low, average, and high soils. A base acre of each acre of crop raised was assumed.

⁴The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven year trading policy assumed for combine and planter, ten year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well drained soils where more days are suitable for spring field work, machinery costs could be lower.

⁵Labor expenses include a family living withdrawal of \$24,723 (\$48,097 of family living expenses less \$23,374 in net nonfarm income reported by Illinois Farm Business Farm Management Association records in 2001) and \$12,000 for hired labor.

⁶Based on cash rent at \$101 per acre on low yield soil, \$125 per acre on average yield soil, and \$154 on high yield soil.

Purdue Crop Cost & Return Guide January 2004
Table 1. Estimated Per Acre Crop Budgets

ID-165W (Rev)

	Crop Budgets for Three Yield Levels ¹																	
	Miami (Low Yield)				Crosby (Average Yield)				Brookston (High Yield)									
	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	Wheat	DC Beans
Expected yield per acre ²	106.6	114.6	37.1	33.4	61.0	21.7	131.9	141.9	46.0	41.4	68.6	27.0	162.4	174.6	56.6	50.9	76.0	33.1
Harvest price ³	\$2.29	\$2.29	\$6.14	\$6.14	\$3.56	\$6.14	\$2.29	\$2.29	\$6.14	\$6.14	\$3.56	\$6.14	\$2.29	\$2.29	\$6.14	\$6.14	\$3.56	\$6.14
Market Revenue	\$244	\$262	\$228	\$205	\$217	\$133	\$302	\$325	\$282	\$254	\$244	\$166	\$372	\$400	\$348	\$313	\$271	\$203
Loan Deficiency Payment (LDP) ⁴	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total revenue	\$244	\$262	\$228	\$205	\$217	\$133	\$302	\$325	\$282	\$254	\$244	\$166	\$372	\$400	\$348	\$313	\$271	\$203
Less variable costs ⁵																		
Fertilizer ⁶	\$50	\$46	\$18	\$17	\$37	\$12	\$62	\$60	\$22	\$20	\$43	\$14	\$78	\$76	\$27	\$24	\$50	\$17
Seed ⁷	28	28	33	33	20	38	33	33	33	33	20	38	33	33	33	33	20	38
Chemicals ⁸	32	16	16	16	N/A	13	34	19	16	16	N/A	13	39	23	16	16	N/A	13
Dryer Fuel & Handling	14	12	1	1	N/A	2	18	15	1	1	N/A	3	22	18	1	1	N/A	3
Machinery Fuel @ \$1.20	8	8	8	8	5	4	10	10	10	10	5	4	11	11	11	11	5	4
Machinery Repairs ⁹	8	8	8	8	4	4	9	9	9	9	4	4	10	10	10	10	5	4
Hauling	6	7	2	2	4	1	8	9	3	3	4	2	10	10	3	3	5	2
Interest ¹⁰	5	4	3	3	3	3	6	5	4	3	3	3	7	6	4	4	3	3
Insurance/misc.	11	11	8	8	7	4	11	11	8	8	8	4	11	11	8	8	8	4
Total variable cost ¹¹ (Revenue -	\$162	\$140	\$97	\$96	\$80	\$81	\$191	\$171	\$106	\$102	\$88	\$85	\$221	\$198	\$113	\$110	\$96	\$88
Contribution margin ¹¹ (Revenue -	\$82	\$122	\$131	\$109	\$137	\$52	\$111	\$154	\$176	\$152	\$156	\$81	\$151	\$202	\$235	\$203	\$75	\$115
Variable costs) per acre																		

¹Estimated yields and costs are for normal yields with average management for three different soils representing low, average, and high productivity. On each soil, these estimated yields may vary \pm 10% for management, and \pm 10% for plant/harvest date. These yields assume normal weather conditions.

²Average yield based on timely plant/harvest date, except soybean double crop yield, which is based on July 1 plant date. Continuous corn, soybean, and wheat yields are a percent of rotation corn yield: continuous corn 95%; drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%); wheat 55% on low yield, 50% on average yield, and 45% on high yield soils; and double crop soybeans (South-central Indiana) 19% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans, and Wheat").

³Harvest corn price is December 2004 CBOT opening futures price on January 6, 2004, less \$0.25 basis. Harvest soybean price is November 2004 CBOT opening futures price on January 6, 2004, less \$0.30 basis. Harvest wheat price is July 2004 CBOT opening futures price quoted on January 5, 2004, less \$0.30 basis.

⁴Loan Deficiency Payment is paid on all bushels produced. The per bushel payment is the amount by which the loan rate exceeds the market price. Loan rates are \$2.01 for corn, \$5.12 for soybeans, and \$2.49 for wheat.

⁵Seed, fertilizer, chemical, and fuel prices are early January 2004 quotes.

⁶Fertilizer based on the state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O-lime by crop and soil: continuous corn, 119-39-49-357; 153-49-56-460; 195-60-64-585; rotation corn, 100-42-51-300; 137-52-58-411; 182-65-67-544; rotation beans, 0-31-74-0, 0-38-86-0, 0-47-102-0, wheat, 63-40-43-188, 77-45-46-230, 90-49-49-270; double crop beans, 0-17-50-0, 0-22-58-0, 0-26-66-0. Fertilizer prices per lb.: NH₃ @ \$0.24; urea @ \$0.32; P₂O₅ @ \$0.28; K₂O @ \$0.14; lime @ \$16/ton. 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range. The potash recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC.

⁷Add \$7 per acre for Bt corn seed. Soybean seed prices include Round-Up Ready varieties.

⁸Corn insecticide @ \$16 per acre is included for continuous corn and should be added to rotation corn in northern Indiana.

⁹Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be \$6-10 higher, and indirect machinery costs will be lower.

¹⁰Interest is based on 6.0% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs and all the insurance/misc.

¹¹Contribution margin is the return to the unpaid operator labor/management, machinery services, and land resources.

Purdue Crop Cost & Return Guide January 2004
Table 2. Estimated Per Farm Crop Budgets For 2004 - January Estimates
 Effect on Earnings for Each of Four Crop Rotations on Three Soil Types Using Similar Machinery and Labor When Farm Size is Adjusted to Permit Timely Fieldwork¹

Farm Acres	(Miami) Low Yield Soils				(Crosby) Average Yield Soils				(Brookston) High Yield Soils			
	900 c-c	1000 c-b	1200 c-b, c-w, dc	1200 c-b, c-w, dc	900 c-c	1000 c-b	1200 c-b, c-w	1200 c-b, c-w, dc	900 c-c	1000 c-b	1200 c-b, c-w	1200 c-b, c-w, dc
Crop contribution margin ²	\$73,800	\$126,500	\$153,000	\$163,400	\$89,900	\$165,000	\$194,000	\$210,200	\$135,900	\$218,500	\$250,200	\$273,200
Government payment ³	20,241	17,175	22,596	22,596	23,670	20,070	26,222	26,222	29,259	24,820	31,794	31,794
Total contribution margin	\$94,041	\$143,675	\$175,596	\$185,996	\$123,570	\$185,070	\$220,222	\$236,422	\$165,159	\$243,320	\$281,994	\$304,994
Annual overhead costs:												
Machinery replacement ⁴	45,000	48,500	48,500	49,000	48,600	52,100	52,100	52,600	54,000	57,500	57,500	58,000
Drying/handling	6,300	6,300	6,300	6,300	7,200	7,200	7,200	7,200	8,100	8,100	8,100	8,100
Family and hired labor ⁵	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
Land ⁶	\$92,700	\$103,000	\$123,600	\$123,600	\$115,200	\$128,000	\$153,600	\$153,600	\$141,300	\$157,000	\$188,400	\$188,400
Earnings or (losses)	\$ (86,959)	\$ (51,125)	\$ (39,804)	\$ (29,904)	\$ (84,430)	\$ (39,230)	\$ (29,678)	\$ (13,978)	\$ (75,241)	\$ (16,280)	\$ (9,006)	\$ 13,494

¹Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 acres rotation corn - 500 acres soybeans; c-b, c-w = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat; c-b, c-w, dc = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc).

²Crops contribution margin is per acre contribution margin from Table 1 times number of acres.

³Government payment includes the direct payment and the counter cyclical payment. The per bushel direct payment rate is \$0.28 for corn, \$0.44 for soybeans, and \$0.52 for wheat. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils. Direct payment yields for wheat were 45.8, 49.3, 55.5 on low, average, and high soils. The counter cyclical payments were based on a target price of \$2.63 for corn, \$5.80 for soybeans, and \$3.92 for wheat. The average marketing year price assumed was \$2.36 for corn, \$6.40 for soybeans, and \$3.85 for wheat. The counter cyclical yields for corn were 108.1, 133.4, and 164.1 for low, average, and high soils. The counter cyclical yields for soybeans were 36.2, 44.7, and 55.0 for low, average and high soils. The counter cyclical yields for wheat were 59.5, 66.7, 73.8 for low, average, and high soils. A base acre of each acre of crop raised was assumed.

⁴The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven-year trading policy assumed for combine and planter, 10-year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well drained soils where more days are suitable for spring field work, machinery costs could be lower.

⁵Labor expenses include a family living withdrawal of \$24,139 (\$48,855 of family living expenses less \$24,716 in net nonfarm income reported by Illinois Farm Business Farm Management Association records in 2002) and \$12,000 for part-time hired labor.

⁶Based on cash rent at \$103 per acre on low yield soil, \$128 per acre on average yield soil, and \$157 per acre on high yield soil.

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January 2005 Purdue Crop Cost & Return Guide

Table 1. Estimated per Acre Crop Budgets for Low, Average, and High Productivity Indiana Soils

	Low Productivity Soil										Average Productivity Soil										High Productivity Soil															
	Cont.		Rot.		Rot.		Year		Wheat		DC		Cont.		Rot.		Rot.		Year		Wheat		DC		Cont.		Rot.		Rot.		Year		Wheat		DC	
	Corn	Beans	Beans	Beans	Beans	Beans	Wheat	Beans	Beans	Wheat	Beans	Beans	Beans	Beans	Wheat	Beans	Beans	Beans	Beans	Wheat	Beans	Beans	Beans	Beans	Beans	Beans	Wheat	Beans	Beans	Beans	Wheat	Beans				
Expected yield per acre ²	104.0	115.5	37.1	33.4	61.5	21.0	128.7	143.0	46.0	41.4	68.6	25.7	158.3	175.9	56.6	50.9	75.8	31.7	104.0	115.5	37.1	33.4	61.5	21.0	128.7	143.0	46.0	41.4	68.6	25.7	158.3	175.9	56.6	50.9	75.8	31.7
Harvest price ³	\$2.12	\$2.12	\$5.23	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23	\$2.12	\$2.12	\$5.23	\$2.88	\$5.23
Market Revenue	\$220	\$245	\$194	\$175	\$177	\$110	\$273	\$303	\$241	\$217	\$198	\$134	\$336	\$373	\$296	\$266	\$218	\$165	\$220	\$245	\$194	\$175	\$177	\$110	\$273	\$303	\$241	\$217	\$198	\$134	\$336	\$373	\$296	\$266	\$218	\$165
Loan Deficiency Payment (LDP) ⁴	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total revenue	\$220	\$245	\$194	\$175	\$177	\$110	\$273	\$303	\$241	\$217	\$198	\$134	\$336	\$373	\$296	\$266	\$218	\$165	\$220	\$245	\$194	\$175	\$177	\$110	\$273	\$303	\$241	\$217	\$198	\$134	\$336	\$373	\$296	\$266	\$218	\$165
Less variable costs ⁵																																				
Fertilizer ⁶	\$53	\$51	\$22	\$20	\$44	\$14	\$67	\$66	\$26	\$24	\$50	\$16	\$83	\$84	\$31	\$29	\$57	\$19	\$53	\$51	\$22	\$20	\$44	\$14	\$67	\$66	\$26	\$24	\$50	\$16	\$83	\$84	\$31	\$29	\$57	\$19
Seed ⁷	29	29	36	36	21	42	34	34	36	36	21	42	34	34	36	34	34	36	21	42	34	36	36	21	42	34	34	36	34	34	36	36	21	42		
Chemicals ⁸	34	16	14	14	N/A	11	36	19	14	14	N/A	11	41	23	14	14	N/A	11	41	23	14	14	N/A	11	41	23	14	14	N/A	11	41	23	14	14	N/A	11
Dryer Fuel & Handling	16	14	1	1	N/A	3	20	17	1	1	N/A	3	24	21	1	1	N/A	3	24	21	1	1	N/A	3	24	21	1	1	N/A	3	24	21	1	1	N/A	3
Machinery Fuel @ \$1.55	11	11	11	11	6	5	12	12	12	12	6	5	14	14	14	14	6	5	14	14	14	14	6	5	14	14	14	14	6	5	14	14	14	6	5	14
Machinery Repairs ⁹	9	9	9	9	4	4	10	10	10	10	5	4	11	11	11	11	5	4	11	11	11	11	5	4	11	11	11	11	5	4	11	11	11	5	4	11
Hauling ¹⁰	6	7	2	2	4	1	8	9	3	2	4	2	10	11	3	3	5	2	4	4	4	4	3	3	5	2	4	4	4	4	4	4	4	4	4	
Interest ¹⁰	6	5	4	4	3	4	7	6	4	4	4	4	8	7	4	4	8	7	4	4	4	4	4	8	7	4	4	4	4	4	4	4	4	4	4	
Insurance/misc.	11	11	8	8	7	4	11	11	8	8	8	4	11	11	8	8	4	11	11	8	8	8	4	11	11	8	8	8	8	4	11	11	8	8	4	11
Total variable cost ¹¹	\$175	\$153	\$107	\$105	\$89	\$88	\$205	\$184	\$114	\$111	\$98	\$91	\$236	\$216	\$123	\$120	\$106	\$94	\$175	\$153	\$107	\$105	\$89	\$88	\$205	\$184	\$114	\$111	\$98	\$91	\$236	\$216	\$123	\$120	\$106	\$94
Contribution margin ¹¹	\$45	\$92	\$87	\$70	\$88	\$22	\$68	\$119	\$127	\$106	\$100	\$43	\$100	\$157	\$173	\$146	\$112	\$72	\$45	\$92	\$87	\$70	\$88	\$22	\$68	\$119	\$127	\$106	\$100	\$43	\$100	\$157	\$173	\$146	\$112	\$72

¹ Estimated yields and costs are for yields with average management for three different soils representing low, average, and high productivity. On each soil, these estimated yields may vary ± 10% for management, and ± 10% for plant/harvest date. These yields assume average weather conditions.

² Average yield based on timely plant/harvest date, except soybean double crop yield, which is based on July 1 plant date. Continuous corn, soybean, and wheat yields are a percent of rotation corn yield: continuous corn 90%, drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%), wheat 53% on low yield, 48% on average yield, and 43% on high yield soils; and double crop soybeans (South-central Indiana) 18% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans, and Wheat").

³ Harvest corn price is December 2005 CBOT futures price less \$0.25 basis. Harvest soybean price is November 2005 CBOT futures price less \$0.30 basis. Harvest wheat price is July 2005 CBOT futures price less \$0.30 basis.

⁴ Loan Deficiency Payment is paid on all bushels produced. The per bushel payment is the amount by which the loan rate exceeds the market price. Loan rates are \$2.01 for corn, \$5.12 for soybeans, and \$2.49 for wheat.

⁵ Seed, fertilizer, chemical, and fuel prices are early January 2005 quotes.

⁶ Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O-lime by crop and soil: continuous corn, 115-39-48-346, 149-48-55-447, 189-59-63-568; rotation corn, 101-43-51-303, 139-53-59-415, 183-65-68-550; rotation beans, 0-30-72-0, 0-37-84-0, 0-46-101-0, wheat, 60-38-43-180, 73-43-45-218, 85-48-48-256; double crop beans, 0-17-48-0, 0-21-57-0, 0-26-65-0. Fertilizer prices per lb.: NH₃ @ \$0.26; urea @ \$0.38; P205 @ \$0.30; K20 @ \$0.18; lime @ \$16/ton, 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range. The potash recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC.

⁷ Add \$7 per acre for Bt corn seed. Soybean seed prices include Round-Up Ready® varieties

⁸ Corn insecticide @ \$17.80 per acre is included for continuous corn and should be added to rotation corn in northern Indiana.

⁹ Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be \$6-10 higher, and indirect machinery costs will be lower.

¹⁰ Interest is based on 6.5% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs and all the insurance/misc.

¹¹ Contribution margin is the return to the unpaid operator labor/management, machinery services, and land resources.

January 2005 Purdue Crop Cost & Return Guide

Table 2. Estimated per Farm Crop Budgets for Low, Average, and High Productivity Indiana Soils

	Low Productivity Soil					Average Productivity Soil					High Productivity Soil				
	900	1000	1200	1200	dc	900	1000	1200	1200	dc	900	1000	1200	1200	dc
Farm Acres	900	1000	1200	1200	dc	900	1000	1200	1200	dc	900	1000	1200	1200	dc
Rotation	c-c	c-b	c-b	c-w	c-b, c-w, dc	c-c	c-b	c-b	c-w	c-b, c-w, dc	c-c	c-b	c-b	c-w	c-b, c-w, dc
Crop contribution margin ²	\$40,500	\$89,500	\$107,600	\$112,000	\$112,000	\$61,200	\$123,000	\$142,200	\$150,800	\$150,800	\$90,000	\$165,000	\$185,800	\$200,200	\$200,200
Government payment ³	30,168	22,690	32,450	32,450	32,450	35,919	26,875	38,016	38,016	38,016	44,325	33,190	45,852	45,852	45,852
Total contribution margin	\$70,668	\$112,190	\$140,050	\$144,450	\$144,450	\$97,119	\$149,875	\$180,216	\$188,816	\$188,816	\$134,325	\$198,190	\$231,652	\$246,052	\$246,052
Annual overhead costs:															
Machinery replacement ⁴	45,000	48,500	48,500	49,000	49,000	48,600	52,100	52,100	52,600	52,600	54,000	57,500	57,500	58,000	58,000
Drying/handling	6,300	6,300	6,300	6,300	6,300	7,200	7,200	7,200	7,200	7,200	8,100	8,100	8,100	8,100	8,100
Family and hired labor ⁵	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Land ⁶	\$94,500	\$105,000	\$126,000	\$126,000	\$126,000	\$116,100	\$129,000	\$154,800	\$154,800	\$154,800	\$113,400	\$160,000	\$192,000	\$192,000	\$192,000
Earnings or (losses)	-\$114,132	-\$86,610	-\$79,750	-\$75,850	-\$75,850	-\$113,781	-\$77,425	-\$72,884	-\$64,784	-\$64,784	-\$80,175	-\$66,410	-\$64,948	-\$51,048	-\$51,048

¹Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 acres rotation corn - 500 acres soybeans; c-b, c-w = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat; c-b, c-w, dc = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc).

²Crops contribution margin is per acre contribution margin from Table 1 times number of acres.

³Government payment includes the direct payment and the counter cyclical payment. The per bushel direct payment rate is \$0.28 for corn, \$0.44 for soybeans, and \$0.52 for wheat. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils.

⁴Direct payment yields for wheat were 45.8, 49.3, 55.5 on low, average, and high soils. The counter cyclical payments were based on a target price of \$2.63 for corn, \$5.80 for soybeans, and \$3.92 for wheat. The average marketing year price assumed was \$2.23 for corn, \$5.66 for soybeans, and \$3.08 for wheat. The counter cyclical yields for corn were 108.1, 133.4, and 164.1 for low, average, and high soils. The counter cyclical yields for soybeans were 36.2, 44.7, and 55.0 for low, average and high soils. The counter cyclical yields for wheat were 59.5, 66.7, 73.8 for low, average, and high soils. A base acre of each acre of crop raised was assumed.

⁵The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven-year trading policy assumed for combine and planter. 10-year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well-drained soils where more days are suitable for spring field work, machinery costs could be lower.

⁶Labor expenses include a family living withdrawal of \$26,989 (\$52,908 of family living expenses less \$25,919 in net nonfarm income. Values are reported in *Farm Income & Production Costs for 2003*, University of Illinois Extension, AE-4566, April 2004) and \$12,000 for part-time hired labor.

⁷Based on cash rent at \$105 per acre on low yield soil, \$129 per acre on average yield soil, and \$160 per acre on high yield soil.

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2006 Purdue Crop Cost & Return Guide

Table 1. Estimated per Acre Crop Budgets for Low, Average, and High Productivity Indiana Soils

	Crop Budgets for Three Yield Levels ¹																
	Low Productivity Soil					Average Productivity Soil					High Productivity Soil						
	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Second-Year Beans	DC Beans		
Expected yield per acre ²	107.0	118.9	37.3	33.5	59.0	132.4	147.1	46.2	41.6	65.8	26.7	162.8	180.9	56.8	51.2	72.7	31.7
Harvest price ³	\$2.31	\$2.31	\$5.84	\$5.84	\$3.48	\$2.31	\$2.31	\$5.84	\$5.84	\$3.48	\$5.84	\$2.31	\$2.31	\$5.84	\$5.84	\$3.48	\$5.84
Market Revenue	\$247	\$275	\$218	\$196	\$205	\$306	\$340	\$270	\$243	\$229	\$150	\$376	\$418	\$332	\$299	\$253	\$185
Loan Deficiency Payment (LDP) ⁴	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total revenue	\$247	\$275	\$218	\$196	\$205	\$306	\$340	\$270	\$243	\$229	\$150	\$376	\$418	\$332	\$299	\$253	\$185
Less variable costs ⁵																	
Fertilizer ⁶	\$69	\$66	\$27	\$24	\$47	\$87	\$86	\$32	\$29	\$55	\$20	\$108	\$109	\$38	\$35	\$62	\$23
Seed ⁷	30	30	37	37	25	35	35	37	37	25	43	35	35	37	37	25	43
Chemicals ⁸	36	17	12	12	N/A	39	20	12	12	N/A	10	44	25	12	12	N/A	10
Dryer Fuel & Handling	24	20	1	1	N/A	30	25	1	1	N/A	4	36	31	1	1	N/A	4
Machinery Fuel @ \$2.15	15	15	15	15	9	17	17	17	17	9	6	19	19	19	19	9	6
Machinery Repairs ⁹	9	9	9	9	4	10	10	10	10	6	4	11	11	11	11	6	4
Hauling	6	7	2	2	4	8	9	3	3	4	2	10	10	3	3	4	2
Interest ¹⁰	9	7	5	5	5	10	9	5	5	5	5	12	11	6	6	5	5
Insurance/misc.	11	11	8	8	7	11	11	8	8	8	4	11	11	8	8	8	4
Total variable cost ¹¹	\$209	\$182	\$116	\$113	\$101	\$247	\$222	\$125	\$122	\$112	\$98	\$286	\$263	\$135	\$132	\$119	\$101
Contribution margin ¹¹	\$38	\$93	\$102	\$83	\$104	\$59	\$118	\$145	\$121	\$117	\$52	\$90	\$155	\$197	\$167	\$134	\$84
Revenue - variable costs)																	

¹Estimated yields and costs are for yields with average management for three different soils representing low, average, and high productivity. On each soil, these estimated yields may vary ± 10% for management and ± 10% for plant/harvest date. These yields assume average weather conditions.

²Average yield based on timely plant/harvest date, except for soybean double crop yield, which is based on July 1 plant date. Continuous corn, soybean, and wheat yields are a percent of rotation corn yield: continuous corn 90%; drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%); wheat 53% on low yield, 48% on average yield, and 43% on high yield soils; and double crop soybeans (South-central Indiana) 18% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans, and Wheat").

³Harvest corn price is December 2006 CBOT futures price less \$0.25 basis. Harvest soybean price is November 2006 CBOT futures price less \$0.30 basis. Harvest wheat price is July 2006 CBOT futures price less \$0.30 basis.

⁴Loan Deficiency Payment is paid on all bushels produced. The per bushel payment is the amount by which the loan rate exceeds the market price. Loan rates are \$2.01 for corn, \$5.12 for soybeans, and \$2.49 for wheat.

⁵Seed, fertilizer, chemical, and fuel prices are early February 2006 quotes.

⁶Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O-lime by crop and soil: continuous corn, 120-39-49-359, 154-49-56-462, 195-60-64-584; rotation corn, 106-44-52-317, 144-54-60-432, 189-67-69-567; rotation beans, 0-30-72-0, 0-37-85-0, 0-46-100-0, wheat, 56-37-42-167, 68-42-44-203, 80-46-47-239; double crop beans, 0-17-49-0, 0-21-56-0, 0-25-64-0. Fertilizer prices per lb.: NH₃ @ \$0.34; urea @ \$0.42; P205 @ \$0.36; K2O @ \$0.22; lime @ \$18/ton. 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range.

⁷The polart seed recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC.

⁸Add \$7 per acre for Bt corn seed. Soybean seed prices include Round-Up Ready® varieties.

⁹Corn rootworm insecticide @ \$18.90 per acre is included for continuous corn and should be added to rotation corn in northern Indiana.

¹⁰Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be \$6-10 higher, and indirect machinery costs will be lower.

¹¹Interest is based on 7.75% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs and all the insurance/misc.

2006 Purdue Crop Cost & Return Guide

Table 2. Estimated per Farm Crop Budgets for Low, Average, and High Productivity Indiana Soils

Rotation	Low Productivity Soil				Average Productivity Soil				High Productivity Soil			
	900	1000	1200	1200	900	1000	1200	1200	900	1000	1200	1200
Farm Acres	c-c	c-b	c-b, c-w	c-b, c-w, dc	c-c	c-b	c-b, c-w	c-b, c-w, dc	c-c	c-b	c-b, c-w	c-b, c-w, dc
Crop contribution margin ²	\$34,200	\$97,500	\$117,400	\$123,600	\$53,100	\$131,500	\$152,200	\$162,600	\$81,000	\$176,000	\$198,600	\$215,400
Government payment ³	20,241	17,175	22,596	22,596	23,670	20,070	26,222	26,222	29,259	24,820	31,794	31,794
Total contribution margin	\$54,441	\$114,675	\$139,996	\$146,196	\$76,770	\$151,570	\$178,422	\$188,822	\$110,259	\$200,820	\$230,394	\$247,194
Annual overhead costs:												
Machinery replacement ⁴	45,000	48,500	48,500	49,000	48,600	52,100	52,100	52,600	54,000	57,500	57,500	58,000
Drying/handling	6,300	6,300	6,300	6,300	7,200	7,200	7,200	7,200	8,100	8,100	8,100	8,100
Family and hired labor ⁵	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000	39,000
Land ⁶	\$97,200	\$108,000	\$129,600	\$129,600	\$120,600	\$134,000	\$160,800	\$160,800	\$148,500	\$165,000	\$198,000	\$198,000
Earnings or (losses)	-\$133,059	-\$87,125	-\$83,404	-\$77,704	-\$138,630	-\$80,730	-\$80,678	-\$70,778	-\$139,341	-\$88,780	-\$72,206	-\$55,906

¹ Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 acres rotation corn - 500 acres soybeans; c-b, c-w = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc); b, c-w, dc = 400 acres corn - 400 acres soybeans plus 200 acres corn - 200 acres wheat, double crop beans (dc).

² Crop's contribution margin is per acre contribution margin from Table 1 times number of acres.

³ Government payment includes the direct payment and the quarterly cyclical payment. The per bushel direct payment rate is \$0.28 for corn, \$0.44 for soybeans, and \$0.52 for wheat. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils. Direct payment yields for wheat were 45.8, 49.3, 55.5 on low, average, and high soils. The counter cyclical payments were based on a target price of \$2.63 for corn, \$5.80 for soybeans, and \$3.92 for wheat. The average marketing year price assumed was \$2.43 for corn, \$6.07 for soybeans, and \$3.72 for wheat. The counter cyclical yields for corn were 108.1, 133.4, and 164.1 for low, average, and high soils. The counter cyclical yields for soybeans were 36.2, 44.7, and 55.0 for low, average and high soils. The counter cyclical yields for wheat were 59.5, 66.7, 73.8 for low, average, and high soils. A base acre for each acre of crop raised was assumed.

⁴ The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven-year trading policy assumed for combine and planter, 10-year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well-drained soils where more days are suitable for spring field work, machinery costs could be lower.

⁵ Labor expenses include a family living withdrawal of \$26,989 (\$52,908 of family living expenses less \$25,919 in net nonfarm income. Values are reported in *Farm Income & Production Costs for 2003*, University of Illinois Extension, AE-4566, April 2004), and the balance is used for part-time hired labor.

⁶ Based on cash rent at \$108 per acre on low-yield soil, \$134 per acre on average-yield soil, and \$165 per acre on high-yield soil.

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2007 Purdue Crop Cost & Return Guide

(The numbers in this publication are best considered as general guidelines when beginning the process of generating one's own specific crop budgets for 2007.)

Table 1. Estimated per Acre Crop Budgets for Low, Average, and High Productivity Indiana Soils

	Low Productivity Soil						Average Productivity Soil						High Productivity Soil					
	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans			
Expected yield per acre ²	118.9	126.5	39.6	56.4	23.4	147.1	156.5	49.0	69.8	28.9	181.0	192.5	60.3	85.9	35.6			
Harvest price ³	\$3.71	\$3.71	\$7.65	\$4.05	\$7.65	\$3.71	\$3.71	\$7.65	\$4.05	\$7.65	\$3.71	\$3.71	\$7.65	\$4.05	\$7.65			
Market Revenue	\$441	\$469	\$303	\$228	\$179	\$546	\$581	\$375	\$283	\$221	\$671	\$714	\$461	\$348	\$272			
Less variable costs ⁴																		
Fertilizer ⁵	\$68	\$63	\$28	\$44	\$18	\$85	\$79	\$34	\$58	\$21	\$106	\$98	\$40	\$75	\$25			
Seed ⁶	39	39	39	26	45	43	43	39	26	45	45	45	39	26	45			
Chemicals ⁷	49	30	12	N/A	10	49	30	12	N/A	10	49	30	12	N/A	10			
Dryer Fuel	22	18	N/A	N/A	3	27	22	N/A	N/A	3	34	27	N/A	N/A	4			
Machinery Fuel @ \$2.20	16	16	7	10	7	16	16	7	10	7	16	16	7	10	7			
Machinery Repairs ⁸	10	10	6	10	9	10	10	6	10	9	10	10	6	10	9			
Hauling ⁹	10	11	3	5	2	12	13	4	6	2	15	16	5	7	3			
Insurance/misc.	11	9	6	5	5	12	11	6	6	6	14	12	6	7	6			
Interest ¹⁰	15	15	12	3	4	15	15	12	3	4	16	16	12	7	4			
Total variable cost ¹¹	\$240	\$211	\$113	\$103	\$103	\$269	\$239	\$120	\$119	\$107	\$305	\$270	\$127	\$138	\$113			
Contribution margin ¹¹	\$201	\$258	\$190	\$125	\$76	\$277	\$342	\$255	\$164	\$114	\$366	\$444	\$334	\$210	\$159			
(Revenue - variable costs)																		

¹Estimated yields and costs are for yields with average management for three different soils representing low, average, and high productivity soils. Historically, the high yield has been based on Brookston soil, which is one of the most productive soils in Indiana. The high rotation corn yield shown here is likely 5 to 10 bushels per acre higher than one would expect on average for the top one-third of corn yields in Indiana.

²These yields assume average weather conditions and timely plant/harvest date, except soybean double crop yield, which is based on July 1 plant date. Continuous corn, soybean, and wheat yields are a percent of rotation corn yield: continuous corn 94% assumes a chisel plow tillage system; drill soybeans 31.3%; and wheat 49.2% on low productivity soil and 44.6% on average and high productivity soils. Double crop soybeans (South-central Indiana) are 59% of rotation soybeans.

³Harvest corn price is December 2007 CBOT futures price less \$0.25 basis. Harvest soybean price is November 2007 CBOT futures price less \$0.30 basis. Harvest wheat price is July 2007 CBOT futures price less \$0.75 basis. The prices shown here were estimated using closing prices on February 8, 2007. These prices will change.

⁴Seed, fertilizer, chemical, and fuel prices are based on January 2007 quotes.

⁵Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P₂O₅-K₂O/lime by crop and soil: continuous corn, 130-44-52-391, 169-54-60-506, 215-67-69-644; rotation corn, 111-47-54-332, 143-58-62-430, 180-71-72-540; rotation beans, 0-32-75-0, 0-39-89-0, 0-48-104-0; wheat, 51-36-41-154, 75-44-46-224, 102-54-52-308; double crop beans, 0-19-53-0, 0-29-70-0. Fertilizer prices per lb.: NH₃ @ \$0.28; urea @ \$0.40; P₂O₅ @ \$0.38; K₂O @ \$0.21; lime @ \$18/ton. 5-10% more nitrogen might be needed on poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range.

⁶Corn assumes non-GMO seed. Depending on variety and seeding rate, GMO corn would add \$15 or more per acre. Soybean seed prices include Round-Up Ready® varieties.

⁷Corn rootworm insecticide @ \$18.90 per acre is included for continuous corn and should be added to rotation corn in northern Indiana.

⁸Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be higher and indirect machinery costs will be lower.

⁹Hauling charge represents moving grain from field to storage. Based on Machinery Cost Estimates: Harvesting, University of Illinois, Farm Business Management Handbook, FBW 0203, July 2006.

¹⁰Interest is based on 8.75% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs and all the insurance/misc.

¹¹Contribution margin is the return to the unpaid operator labor/management, machinery services, and land resources.

2007 Purdue Crop Cost & Return Guide

(The numbers in this publication are best considered as general guidelines when beginning the process of generating one's own specific crop budgets for 2007.)

Table 2. Estimated per Acre Indirect Charges for Low, Average, and High Productivity Indiana Soils

Farm Acres Rotation ¹	Low Productivity Soil		Average Productivity Soil		High Productivity Soil	
	2700 c-c	3000 c-b	2700 c-c	3000 c-b	2700 c-c	3000 c-b
Crop contribution margin ²	\$201	\$224	\$277	\$299	\$366	\$389
Government payment ³	\$17	\$17	\$20	\$20	\$25	\$25
Total contribution margin	\$218	\$241	\$297	\$319	\$391	\$414
Annual overhead costs:						
Machinery replacement ⁴	\$43	\$43	\$43	\$43	\$43	\$43
Drying/handling	\$14	\$9	\$14	\$9	\$14	\$9
Family and hired labor ⁵	\$34	\$30	\$34	\$30	\$34	\$30
Land ⁶	\$115	\$115	\$142	\$142	\$175	\$175
Earnings or (losses)	\$13	\$44	\$65	\$95	\$126	\$157

¹Rotations are as follows: c-c = 2,700 acres continuous corn; c-b = 1,500 acres rotation corn - 1,500 acres soybeans.

²Crop's contribution margin is per acre contribution margin from Table 1 times number of acres.

³Government payment includes only the direct payment. The per bushel direct payment rate is \$0.28 for corn and \$0.44 for soybeans. Direct payment yields for corn were 94.5, 110.5, 136.6 on low, average, and high soils. Direct payment yields for soybeans were 31.7, 37.0, and 45.8 for low, average, and high soils. Base acres for the farm are assumed half corn and half soybeans. Federal regulations pertaining to payment limits may limit this payment to a smaller amount than is shown here.

⁴The same basic machinery set, which is timely for each rotation, is used. Corn production utilizes a chisel plow tillage system and soybeans utilize no-till. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for a timely machinery set. Seven-year trading policy assumed for combine and planter, 10-year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well-drained soils where more days are suitable for spring field work, machinery costs could be lower.

⁵Labor expenses include a family living withdrawal of \$40,826 (\$58,285 of family living expenses less \$27,810 in net nonfarm income plus \$10,351 in income and self-employment taxes. Values are reported in *Farm Income & Production Costs for 2005*, University of Illinois Extension, AE-4566, April 2006). A full-time employee with total compensation of \$35,800. Employee compensation based on Wages and Benefits for Farm Employees, Iowa State University, University Extension FM 1862, July 2006. The balance is used for part-time hired labor.

⁶Based on cash rent per bushel reported in *Indiana Farmland Values Continue to Increase, Purdue Agricultural Economics Report*, August, 2006. Cash rent for low-yield soil estimated to be \$115 per acre, average-yield soil estimated to be \$142 per acre, and high-yield soil estimated to be \$175 per acre. The sharp rise in crop prices since the time of the survey may result in a wide variation in cash rents and thus the estimated land charge.

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Calculation of Average Government Payments per Acre

	2002	2003	2004	2005	2006	2007
Total Government Payment	(1) 334,320,000	(2) 446,286,000	(2) 532,055,000	(2) 914,166,000	(2) 541,283,000	(2) 302,688,000
Less Milk Income Loss Pymt	(1) -13,609,000	(2) -16,138,000	(2) -3,025,000	(2) -277,000	(2) -6,538,000	(2) -1,199,000
Net Government Payment	320,711,000	430,148,000	529,030,000	913,889,000	534,745,000	301,489,000
Cropland Acres	(3) 12,848,950	(4) 12,909,002	(4) 12,909,002	(4) 12,909,002	(4) 12,909,002	(4) 12,909,002
Pymt Per Acre	24.96	33.32	40.98	70.79	41.42	23.35

Source:

Indiana Agricultural Statistics Service

IASS - Page 8
Ag. Stats. 06-07 (1)

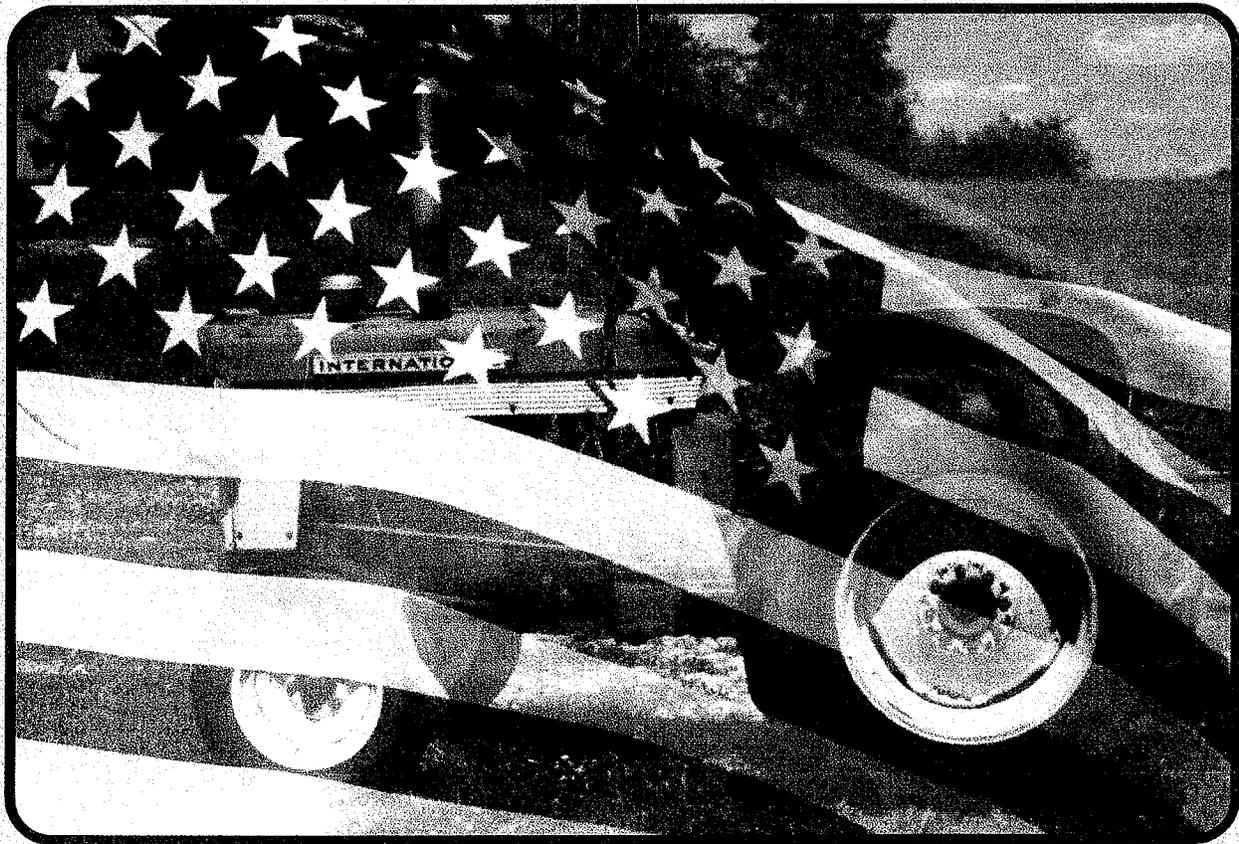
IASS - Page 8
Ag. Stats. 07-08 (2)

IASS - Page 105
Ag. Stats. 02-03 (3)

IASS - Page 101
Ag. Stats. 07-08 (4)

INDIANA

AGRICULTURAL STATISTICS 2002-2003



"The American Farmer"

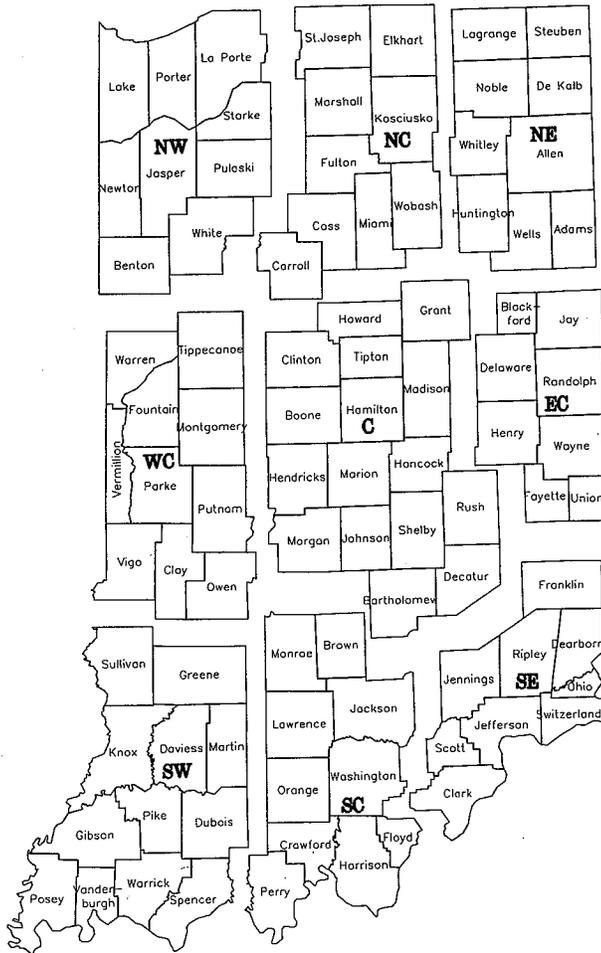
COUNTY HIGHLIGHTS

COUNTY HIGHLIGHTS

The following pages of county statistics represent the results of a survey of over 11,000 farm operators following the 2002 harvest season. In addition to these data are selected items of interest from the 2000 U.S. Population Census, 1997 Census of Agriculture, and 2001 Cash Receipts information. The County Highlights' section summarizes the importance of agriculture to each and every Indiana county while comparing the magnitude of importance across counties.

Planted acreage for hay and tobacco are represented by three dashes because these categories are not estimated, planted acreage and yield for popcorn are represented by three dashes because these categories are not surveyed; in all other places the three dashes represent zero for that county. An asterisk signifies that the county has data for this item, but it cannot be disclosed for confidentiality purposes. The 1997 Chicken data from Census includes only layers and pullets thirteen weeks old and older.

Below is a list of comparable items at the state level.



STATE DATA

2000 Census Population	6,080,485
1997 Total Land Area (acres)	22,956,877
1997 Number of Farms	57,916
1997 Land in Farms (acres)	15,111,022
1997 Average Size of Farm (acres)	261
1997 Value of Land & Bldgs (avg/acre)	\$2,064
1997 Cropland (acres)	12,848,950
1997 Harvested Cropland (acres)	11,716,704
1997 Pastureland, all types (acres)	1,254,525
1997 Woodland (acres)	1,283,246

2001 Cash Receipts	\$5,228,584,000
Crop Receipts	\$3,207,211,000
Livestock Receipts	\$2,021,373,000
2001 Other Income	\$1,466,664,000
Government Payments	\$938,464,000
Imputed Income/Rent Received	\$541,386,000
2001 Total Income	\$6,695,248,000
Less: Production Expenses	\$6,212,167,000
Realized Net Income	\$483,081,000

2002 CROPS	PLTD	HARV	YLD	UNIT	PROD
Corn	5,400,000	5,220,000	121	Bu	631,620,000
Soybeans	5,800,000	5,750,000	41	Bu	235,750,000
Wheat	350,000	330,000	53	Bu	17,490,000
Hay	---	600,000	2.66	Ton	1,596,000
Tobacco	---	4,000	2000	Lbs	8,000,000
1997 Popcorn	---	78,519	---	Lbs	214,059,865

LIVESTOCK	NUMBER HEAD
Jan 2003 All Cattle	860,000
Beef Cows	230,000
Milk Cows	145,000
1997 All Hogs	3,972,060
1997 All Sheep	54,227
1997 Chickens	22,731,425
1997 Turkeys	4,758,760

INDIANA



AGRICULTURAL STATISTICS 2006-2007

FARM INCOME

FARM INCOME INDICATORS, INDIANA, 2002-2006

Item	2002	2003	2004	2005	2006
	Thousand Dollars				
Gross Farm Income	5,462,091	6,424,225	8,015,294	7,325,867	7,439,940
Gross Cash Income	5,316,308	5,742,173	6,888,855	6,581,038	6,734,160
Noncash Income	498,750	524,336	585,355	658,154	700,284
Value of Inventory Adjustment	(352,968)	157,715	541,084	86,675	5,496
Total Production Expenses	4,997,195	5,168,461	5,476,432	5,794,538	5,894,550
Purchased Inputs	2,834,504	2,994,855	3,150,086	3,291,017	3,353,884
Interest	416,190	379,264	376,947	422,773	480,340
Contract and Hired Labor Expenses	254,779	290,000	330,000	297,139	307,395
Net Rent to Nonoperator Landlords	504,101	521,271	564,712	663,516	559,865
Capital Consumption	742,663	753,071	794,687	850,093	893,066
Property Taxes	244,958	230,000	260,000	270,000	300,000
NET FARM INCOME	464,896	1,255,764	2,538,862	1,531,329	1,545,390
Gross Receipts of Farms	4,985,424	5,921,710	7,453,128	6,686,643	6,752,774
Farm Production Expenditures	4,738,699	4,914,365	5,190,117	5,489,726	5,572,480
RETURNS TO OPERATORS	246,725	1,007,345	2,263,011	1,196,917	1,180,294
Gross Cash Income	5,316,308	5,742,173	6,888,855	6,581,038	6,734,160
Cash Expenses	4,185,002	4,355,454	4,597,833	4,880,093	4,949,884
NET CASH INCOME	1,131,306	1,386,719	2,291,022	1,700,945	1,784,276

Source: Economic Research Service

U.S. GOVERNMENT PAYMENTS, BY PROGRAM INDIANA, 2002-2006 1/

Program	2002	2003	2004	2005	2006
	Thousand Dollars				
Production Flexibility Contracts	145,198	(9,979)	(143)	(60)	(2)
Direct Payments 2/	13,933	317,368	232,556	233,838	228,189
Counter-cyclical Program Payments	---	27,053	23,742	192,993	185,161
Loan Deficiency Payments	77,032	2,631	208,965	333,384	44,099
Marketing Loan Gains	22,820	746	5,633	17,450	7,617
Commodity Certificate Exchange Gains	141	1	2,426	8,444	61
Milk Income Loss Payments 3/	13,609	16,138	3,025	277	6,538
Tobacco Transition Payments 4/	---	---	---	20,675	10,980
Conservation 5/	50,538	50,209	54,185	67,995	58,255
Supplemental Funding 6/	11,021	42,159	1,756	39,014	456
Miscellaneous 7/	28	(39)	(90)	(44)	(71)
Total	334,320	446,286	532,055	914,166	541,283

1/ Amounts include only cash payments made directly to farmers.

2/ Direct Payments are authorized by the Farm Security and Rural Investment Act of 2002 for 2002 through 2007 crops. Direct Payments for the 2002 crops are reduced by the amount of fiscal year 2002 payment received under Production Flexibility Contracts. The Act also increases the number of crops authorized to receive Direct Payments.

3/ Program authorized by the Farm Security and Rural Investment Act of 2002.

4/ Payment includes both the CCC payments to quota holders and producers and the third party payments to quota holders and producers who opted for the lump sum payment option.

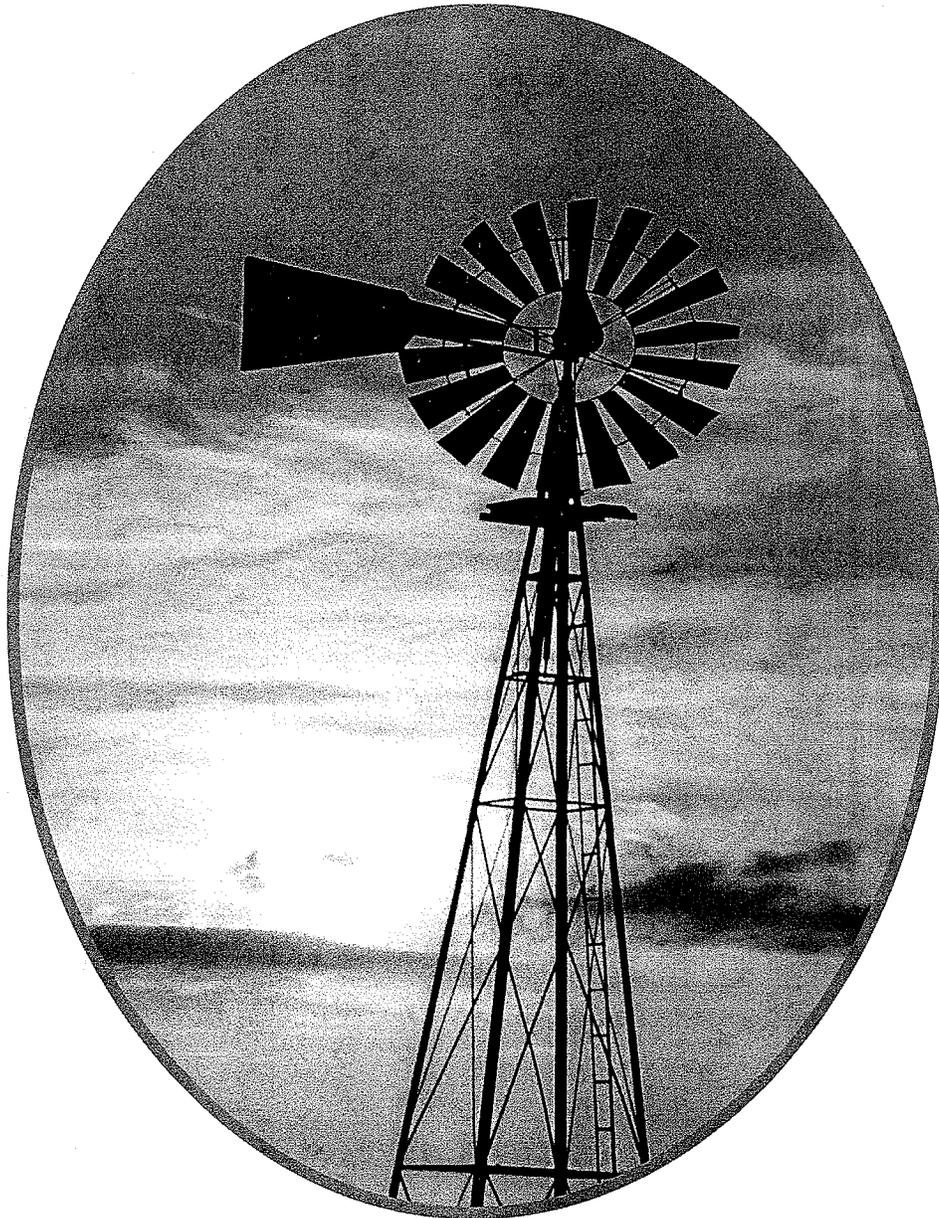
5/ Includes amount paid under Conservation Reserve, Agriculture Conservation, Emergency Conservation, and Great Plains Program.

6/ Ad Hoc and emergency programs provided by the Agricultural Risk Protection Act of 2000, Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act 2001 and Agricultural Economic Assistance Act 2001. Some of these programs include; Crop Disaster Program, Dairy Disaster Assistance Program, Livestock Emergency Assistance program, Quality Losses Program, and Tobacco Disaster Assistance Program

7/ Miscellaneous Programs include; Forestry Incentive Annual, Dairy Indemnity, Interest Payments, Disaster Program Payments, Payment Limitation Refund, Noninsured Assistance, Disaster Reserve, and Environment Quality Incentives.

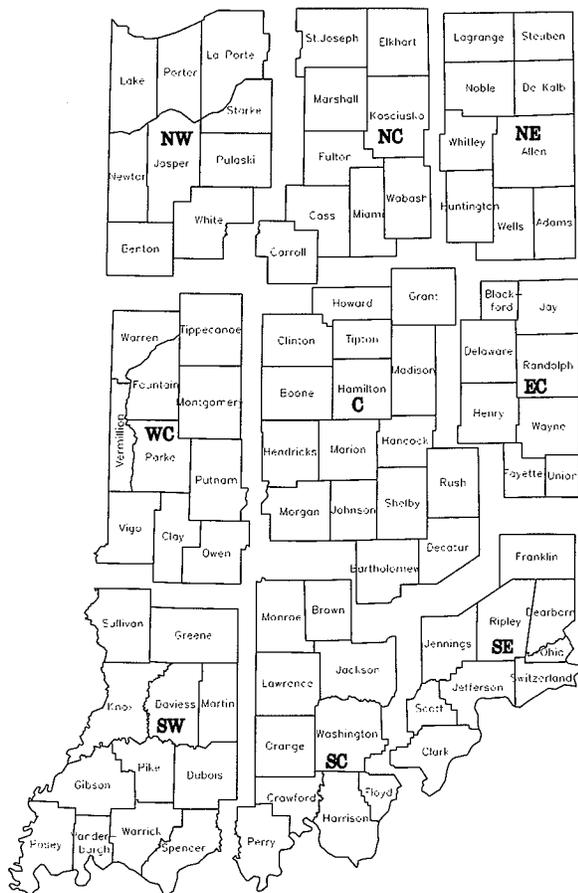
Source: Economic Research Service

INDIANA



AGRICULTURAL STATISTICS 2007-2008

COUNTY HIGHLIGHTS



COUNTY HIGHLIGHTS

The following pages of county statistics represent the results of a survey of over 11,000 farm operators following the 2007 harvest season. In addition to these data are selected items of interest from the 2000 U.S. Population Census, 2002 Census of Agriculture, and 2006 Cash Receipts information from the Bureau of Economics Analysis. The County Highlights section summarizes the importance of agriculture to each and every Indiana county while comparing the magnitude of importance across counties.

Planted acreage for hay is represented by three dashes because this category is not estimated, planted acreage and yield for popcorn are represented by three dashes for popcorn because these categories are not surveyed; in all other places the three dashes represent zero for that county. An asterisk signifies that the county has data for this item, but it cannot be disclosed for confidentiality purposes. The 2002 Chicken data from Census includes only layers twenty weeks old and older.

Below is a list of comparable items at the state level.

STATE DATA

2000 Census Population	6,080,485
2002 Total Land Area (acres)	22,945,817
2002 Number of Farms	60,296
2002 Land in Farms (acres)	15,058,670
2002 Average Size of Farm (acres)	250
2002 Value of Land & Bldgs (avg/acre)	\$2,567
2002 Cropland (acres)	12,909,002
2002 Harvested Cropland (acres)	11,937,370
2002 Pastureland, all types (acres)	1,098,301
2002 Woodland (acres)	1,153,779

2006 Cash Receipts	\$6,040,112,000
Crop Receipts	\$3,787,303,000
Livestock Receipts	\$2,252,809,000
2006 Other Income	\$765,206,000
Government Payments	\$541,141,000
Imputed Income/Rent Received	\$224,065,000
2006 Total Income	\$6,805,318,000
Less: Production Expenses	\$6,222,612,000
Realized Net Income	\$582,706,000

<u>2007 CROPS</u>	<u>PLTD</u>	<u>HARV</u>	<u>YLD</u>	<u>UNIT</u>	<u>PROD</u>
Corn	6,500,000	6,370,000	155	Bu	987,350,000
Soybeans	4,700,000	4,680,000	45	Bu	210,600,000
Wheat	420,000	370,000	57	Bu	21,090,000
Hay	---	660,000	2.34	Ton	1,544,000
2002 Popcorn	---	69,207	---	Lbs	219,836,706

<u>LIVESTOCK</u>	<u>NUMBER HEAD</u>
Jan 2008 All Cattle	890,000
Beef Cows	234,000
Milk Cows	166,000
2002 All Hogs	3,478,570
2002 All Sheep	61,620
2002 Chickens	21,952,110
2002 Turkeys	3,848,054

FARM INCOME

FARM INCOME INDICATORS, INDIANA, 2003-2007

Item	2003	2004	2005	2006	2007
	Thousand Dollars				
Gross Farm Income	6,424,225	8,006,210	7,376,297	7,421,383	9,165,326
Gross Cash Income	5,742,173	6,888,855	6,596,476	6,845,379	8,360,284
Noncash Income	524,336	576,271	652,139	706,756	806,041
Value of Inventory Adjustment	157,715	541,084	127,682	(130,752)	(1,000)
Total Production Expenses	5,095,617	5,473,308	5,775,167	5,939,715	6,850,739
Purchased Inputs	2,926,380	3,149,828	3,276,285	3,425,886	4,275,441
Interest	383,120	382,735	429,433	458,885	494,013
Contract and Hired Labor Expenses	290,000	324,652	288,771	309,057	331,330
Net Rent to Nonoperator Landlords	520,869	563,023	661,968	554,656	509,257
Capital Consumption	745,248	793,070	848,710	891,231	920,698
Property Taxes	230,000	260,000	270,000	300,000	320,000
NET FARM INCOME	1,328,608	2,532,902	1,601,130	1,481,668	2,314,587
Gross Receipts of Farms	5,921,710	7,444,044	6,737,073	6,726,603	8,375,639
Farm Production Expenditures	4,843,994	5,180,577	5,463,242	5,614,440	6,502,156
RETURNS TO OPERATORS	1,077,716	2,263,467	1,273,831	1,112,163	1,873,483
Gross Cash Income	5,742,173	6,888,855	6,596,476	6,845,379	8,360,284
Cash Expenses	4,286,522	4,598,998	4,852,218	4,986,059	5,862,590
NET CASH INCOME	1,455,651	2,289,857	1,744,258	1,859,320	2,497,694

Source: Economic Research Service

U.S. GOVERNMENT PAYMENTS, BY PROGRAM INDIANA, 2003-2007 1/

Program	2003	2004	2005	2006	2007
	Thousand Dollars				
Production Flexibility Contracts	(9,979)	(143)	(60)	(2)	(1)
Direct Payments 2/	317,368	232,556	233,838	228,189	228,027
Counter-cyclical Program Payments	27,053	23,742	192,993	185,161	67
Loan Deficiency Payments	2,631	208,965	333,384	44,099	252
Marketing Loan Gains	746	5,633	17,450	7,617	---
Commodity Certificate Exchange Gains	1	2,426	8,444	61	5
Milk Income Loss Payments 3/	16,138	3,025	277	6,538	1,199
Tobacco Transition Payments 4/	---	---	20,675	10,980	8,272
Conservation 5/	50,209	54,185	67,995	58,255	63,189
Supplemental Funding 6/	42,159	1,756	39,014	456	1,722
Miscellaneous 7/	(39)	(90)	(44)	(71)	(44)
Total	446,286	532,055	914,166	541,283	302,688

1/ Amounts include only cash payments made directly to farmers.

2/ Direct Payments are authorized by the Farm Security and Rural Investment Act of 2002 for 2002 through 2007 crops. Direct Payments for the 2002 crops are reduced by the amount of fiscal year 2002 payment received under Production Flexibility Contracts. The Act also increases the number of crops authorized to receive Direct Payments.

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6/ Ad Hoc and emergency programs provided by the Agricultural Risk Protection Act of 2000, Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act 2001 and Agricultural Economic Assistance Act 2001. Some of these programs include; Crop Disaster Program, Dairy Disaster Assistance Program, Livestock Emergency Assistance program, Quality Losses Program, and Tobacco Disaster Assistance Program

7/ Miscellaneous Programs include; Forestry Incentive Annual, Dairy Indemnity, Interest Payments, Disaster Program Payments, Payment Limitation Refund, Noninsured Assistance, Disaster Reserve, and Environment Quality Incentives.

Source: Economic Research Service

AN OVERVIEW OF HOW THE CALENDAR IS USED IN CALCULATING THE AG LAND BASE RATE

<u>SPRING, 2006</u>	<u>SUMMER, 2006</u>	<u>FALL, 2006</u>	<u>WINTER, 2006</u>	<u>SPRING, 2007</u>	<u>SUMMER, 2007</u>
Planting 2006 crops	Care for 2006 crops	Harvest 2006 crops	Prep equipment for storage	Planting 2007 crops	Care for 2007 crops
Sell a portion of his 2005 crops	Sell remainder of his 2005 crops	Sell a portion of his 2006 crops	Sell a portion of his 2006 crops	Sell a portion of his 2006 crops	Sell remainder of his 2006 crops
Paying 3/1/05 Property Taxes		Paying 3/1/05 Property Taxes		Paying 3/1/06 Property Taxes	
Collect portion of 2006 Cash Rent		Collect remainder of 2006 Cash Rent		Collect portion of 2007 Cash Rent	

CASH RENT INCOME - CALENDAR YEAR

OPER. INCOME -
1/3 NOVEMBER
GRAIN PRICES

OPERATING INCOME - 1/3 MARKET YEAR AVERAGE OF GRAIN PRICES

OPERATING INCOME - 1/3 CALENDAR YEAR AVERAGE OF GRAIN PRICES