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## Returns to farmland ownership

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# Ag Decision Maker

## A Business Newsletter for Agriculture

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### Returns to farmland ownership

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Below are estimates of the average returns from owning low farmland since 1970. Annual returns are in two forms: cash income and change in market value. Total return is the sum of these two.

#### Cash returns

Cash rental rates are used as estimates of the cash returns to farmland. The rate of cash return (percent) each year is computed by dividing the cash rental rate by the market value of land.

Both the estimated cash rent rate and the land value are based on USDA surveys. They differ slightly from Iowa State University Surveys.

#### Results over the entire period

**Cash returns** - As shown in Table 1, the rate of cash return has been up and down since 1970. Returns dropped to only 5.3 percent during the early 1980s due to the rapid inflationary rise in land value. Conversely, the rate rose to 9.7 percent later due to

*continued on page 2*

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**Iowa Farmland Rental Rates (1997-2006) – C2-09**  
(1 page)

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*continued on page 6*

Cash rental rates are a gross return, not a net return, because property taxes and other ownership expenses have not been deducted. These will probably reduce the total return by one to two percentage points. Cash returns have not been adjusted for inflation in the general economy.

#### Increase (decrease) in value

Another form of return is the annual increase or decrease in the market value of farmland. This increase or decrease is computed as a percentage change in value from one year to the next.

#### Inside . . .

- Further guidance on where real property interests constitute an interest in a closely-held business for purposes of I.R.C. § 6166 ..... Page 4
- 6th Annual Iowa Organic Conference ..... Page 6

Returns to farmland ownership, continued from page 1

the plunge in land values during the financial crisis of the late 1980s. The average over the period from 1970 to 2006 was 7.2 percent.

**Land value change** - The return due to changes in land values was much more volatile, ranging from a high of 36.8 percent in 1977 to a low of negative 28.1 percent in 1985. Over the entire period, land values increased by an average of 6.4 percent per year.

**Total returns** - The total return (annual cash return plus change in land value) was 13.6 percent per year. It ranged from a low of a negative 19.1 percent in 1985 to a high of 43.1 percent in 1977.

**Results by financial period**

Rates of return have varied greatly during specific time periods over the past thirty-three years. The rates of return during the farm boom period, farm crisis period and the current period are shown in Table 2.

**Table 1. Returns to farmland ownership per year (per acre).**

Year	Whole Farm Cash Rent	Market Land Value	Cash Rent as Percent of Land Value	Percentage change in land Value	Total Percentage Return
2006	\$130	\$2,930	4.4%	17.7%	22.1%
2005	128	2,490	5.1	13.2	18.3
2004	123	2,200	5.6	7.3	12.9
2003	119	2,050	5.8	3.5	9.3
2002	116	1,980	5.9	4.2	10.1
2001	114	1,900	6.0	4.4	10.4
2000	112	1,820	6.2	2.8	9.0
1999	109	1,770	6.2	4.1	10.3
1998	109	1,700	6.4	6.3	12.7
1997	106	1,600	6.6	10.3	17.0
1996	107	1,450	7.4	7.4	14.8
1995	102	1,350	7.6	5.5	13.0
1994	100	1,280	7.8	5.6	13.4
1993	102	1,212	8.4	5.1	13.5
1992	101	1,153	8.8	1.2	10.0
1991	97	1,139	8.5	4.5	13.0
1990	96	1,090	8.8	-0.5	8.4
1989	91	1,095	8.3	15.6	23.9
1988	82	947	8.7	20.5	29.1
1987	76	786	9.7	-10.0	-0.3
1986	83	873	9.5	-20.0	-10.5
1985	98	1,091	9.0	-28.1	-19.1
1984	109	1,518	7.2	-3.2	4.0
1983	106	1,568	6.8	-13.0	-6.2
1982	106	1,802	5.9	-7.2	-1.3
1981	102	1,941	5.3	7.2	12.4
1980	96	1,811	5.3	16.8	22.1
1979	89	1,550	5.7	16.5	22.2
1978	82	1,331	6.2	5.7	11.9
1977	79	1,259	6.3	36.8	43.1
1976	69	920	7.5	28.0	35.5
1975	60	719	8.3	20.4	28.8
1974	53	597	8.9	28.1	37.0
1973	39	466	8.4	12.6	20.9
1972	35	414	8.5	5.6	14.1
1971	34	392	8.7	0.0	8.7
1970	33	392	8.4	2.6	11.0

Source: USDA Annual Survey of Agricultural Land Values and Cash Rents.  
Cash rental rates for 1995 through 2006 are averages of cropland and pasture rents.

Returns to farmland ownership, continued from page 2

**Table 2. Returns to farmland by time period.**

Time period	Cash rent as percent of value	Percentage change in land value	Total percentage return
Boom period—1970-81	7.3%	15.0%	22.3%
Farm crisis—1982-87	8.0	-13.6	-5.6
Current period—1988-06	7.0	7.3	14.3
Last decade—1997-06	5.8	7.4	13.2
Entire period—1970-06	7.2	6.4	13.6

**Farm boom period** - During the farmland boom period of 1970 through 1981, land values increased rapidly (15 percent on average) providing a total return of 22.3 percent. It should be noted that cash rental rates and land values for the decade before 1970 were very stable. Farmland values and rental rates started their rapid rise in 1973/74 when grain shortages pushed prices to extremely high levels.

**Farm crisis period** - During the farm financial crisis years of 1982 through 1987, land values declined rapidly - an average of 13.6 percent per year. Cash returns as a percent of land values actually increased during this period because land values dropped faster than rental rates. However, the land value declines more than offset cash returns and the average total return was a negative 5.6 percent.

**Current period** - After 1987, land values and rental rates resumed their upward trend, although at a slower rate than during the boom period. The average rate of return during this period has been similar to the average rate of return over the entire period. In the past few years land values have increased faster than cash rents.

## Results by alternative land purchase dates

Rates of return on farmland investments vary greatly depending on when farmland is purchased. In Table 3, farmland is assumed to be purchased at three different time-periods; the beginning

of the boom period (1970), the end of the boom period (1981) and the end of the crisis period (1987). The rates of return for each of these three investment period are shown in Table 3.

**Beginning of boom period (1970)** - A typical Iowa farmland purchase in 1970 would have been \$392 per acre. The value of the farmland 36 years later in 2006 was \$2,930, for an increase of 647 percent or 25 percent per year. The average cash return over the period was 23 percent. This was computed by dividing the cash rental rate for each year by the \$392 original purchase price.

**End of boom period (1981)** - A farmland purchase in 1981 would have been for \$1,941 per acre. The value 25 years later in 2006 was 51 percent higher, for an average increase of 2 percent per year. The average cash return over the period was five percent. The cash return was seven percent in 2006 when cash rents were \$130 per acre.

**End of the crisis period (1987)** - In 1987 the average Iowa farmland value was \$786 per acre. The value in 2006, 19 years later, was \$2,930 for an increase of 273 percent or 14 percent per year. The average cash return over the period was 13 percent. The cash return in 2006 was 17 percent.

**Table 3. Returns to farmland ownership by purchase date**

Ownership period	Purchase price	2006 Price	Percent increase in price	Average annual rent as percent of purchase price*
Beginning of boom period to present (1970 – 2006)	\$392	\$2,930	647%	23%
End of boom period to present (1981 – 2006)	1,941	2,930	51	5
End of crisis period to present (1987- 2006)	786	2,930	273	13

\*The cash return per year is computed by dividing the cash rental rate for each year during the time period by the farmland purchase price. An average cash return is then computed for the time period.