

Table 1.1. Percent of trading days during feeding period that breakeven or better could be hedged for calves, 1996-2015

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1996	39%	35%	84%	66%	92%	57%	17%	8%	30%	46%	39%	81%	50%
1997	100%	100%	100%	100%	100%	100%	100%	100%	99%	43%	14%	20%	81%
1998	52%	46%	61%	42%	91%	42%	35%	0%	8%	1%	0%	0%	31%
1999	12%	75%	96%	99%	100%	100%	94%	90%	71%	59%	100%	92%	82%
2000	100%	100%	99%	100%	100%	100%	84%	21%	22%	1%	14%	21%	64%
2001	14%	11%	27%	74%	68%	15%	4%	1%	0%	0%	0%	0%	18%
2002	0%	0%	26%	26%	59%	48%	6%	0%	0%	0%	0%	10%	15%
2003	43%	77%	93%	100%	100%	100%	2%	12%	22%	36%	38%	57%	57%
2004	52%	51%	51%	53%	8%	22%	32%	45%	42%	62%	68%	61%	46%
2005	10%	0%	2%	91%	77%	90%	40%	13%	0%	1%	0%	2%	27%
2006	33%	63%	72%	69%	24%	13%	0%	0%	0%	2%	4%	8%	24%
2007	0%	0%	17%	23%	49%	55%	43%	32%	49%	1%	27%	26%	27%
2008	15%	0%	0%	4%	2%	0%	10%	3%	11%	11%	46%	63%	14%
2009	51%	44%	33%	23%	40%	16%	2%	0%	0%	1%	0%	2%	18%
2010	15%	0%	42%	99%	100%	96%	80%	56%	18%	1%	0%	3%	42%
2011	31%	15%	38%	57%	65%	47%	8%	0%	0%	0%	0%	0%	22%
2012	39%	1%	91%	96%	80%	28%	0%	0%	0%	0%	0%	0%	28%
2013	0%	19%	3%	0%	0%	0%	0%	0%	0%	0%	27%	74%	10%
2014	89%	74%	100%	100%	95%	95%	43%	38%	60%	66%	83%	80%	77%
2015	65%	51%	28%	38%	2%	0%	0%	0%	0%	0%	0%	0%	15%
Avg	38%	38%	53%	63%	63%	51%	30%	21%	22%	16%	23%	30%	37%

April provided the best chance of hedging to breakeven carrying a 64 percent probability, while the month with the lowest chance of hedging to breakeven was August which had a 22 percent chance. Over the entire time period studied, 40 percent of the days offered a breakeven hedge.

Tables 2.1 and 2.2 show the average percent of trading days by month that a futures hedge produced a return of breakeven +/- \$X/cwt for calves and yearlings. For example, on average, a feedlot could hedge a price that was \$4/cwt below breakeven or better 71 percent of the days during

the feeding period for calves sold in January. Reading down the January column, feedlots could hedge to breakeven 36 percent of the time and to a \$4/cwt profit or better 16 percent of the time.

In the calf market on average, there was a 30 percent chance of hedging to make a profit (\$1/cwt). April and May provided the best chances of hedging a profit carrying a 55 percent chance of hedging a \$1/cwt profit. Only the months of April and May carried at least a 50 percent chance of hedging a profit.

Table 1.2. Percent of trading days during feeding period that breakeven or better could be hedged for yearlings, 1996-2015

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1996	100%	82%	72%	49%	30%	0%	17%	24%	54%	92%	88%	89%	58%
1997	100%	100%	100%	100%	100%	100%	100%	100%	99%	55%	19%	20%	83%
1998	42%	21%	50%	43%	100%	9%	56%	58%	38%	22%	24%	43%	42%
1999	91%	98%	98%	91%	100%	98%	50%	46%	98%	100%	100%	100%	89%
2000	100%	100%	100%	100%	97%	0%	0%	10%	42%	14%	97%	97%	63%
2001	21%	37%	49%	65%	14%	12%	28%	2%	0%	0%	0%	0%	19%
2002	0%	0%	15%	68%	62%	44%	26%	0%	0%	0%	51%	70%	28%
2003	57%	72%	98%	100%	87%	96%	18%	29%	31%	47%	56%	64%	63%
2004	45%	33%	0%	4%	8%	51%	51%	60%	50%	32%	0%	0%	28%
2005	0%	1%	6%	87%	90%	90%	39%	0%	0%	0%	0%	46%	30%
2006	58%	43%	43%	49%	6%	0%	0%	8%	45%	61%	2%	0%	26%
2007	0%	0%	32%	95%	83%	100%	89%	4%	16%	1%	58%	2%	40%
2008	0%	0%	0%	0%	7%	2%	11%	19%	70%	19%	50%	52%	19%
2009	34%	24%	30%	38%	98%	2%	0%	0%	0%	0%	2%	50%	23%
2010	0%	0%	92%	99%	100%	92%	39%	11%	0%	0%	0%	0%	36%
2011	23%	14%	51%	70%	55%	12%	3%	0%	0%	0%	32%	0%	22%
2012	23%	19%	55%	41%	44%	0%	0%	0%	0%	0%	0%	0%	15%
2013	14%	0%	8%	68%	48%	34%	26%	20%	52%	72%	100%	79%	43%
2014	83%	61%	36%	100%	83%	54%	30%	45%	55%	62%	66%	45%	60%
2015	39%	26%	0%	8%	0%	9%	11%	0%	0%	0%	0%	0%	8%
Avg	42%	36%	47%	64%	61%	40%	30%	22%	33%	29%	37%	38%	40%

On average in the yearling market, there was a 32 percent chance of hedging to make a \$1/cwt profit. April provided the best chance with a 54 percent chance of hedging a \$1/cwt profit. The month of April was the only month that carried at least a 50 percent chance of hedging a profit.

Summary

This analysis shows that the market for hedging yearlings and calves is efficient. This does not mean that there are no opportunities to hedge for a profit or that hedging is unproductive for an

operation, it simply means that hedging is a way to minimize risk by decreasing losses and increasing the probability of profit.

The past performance studied in this analysis is not a perfect predictor of outcomes, but it can still provide some insight. First, opportunities to hedge a profit vary based on the markets during each year and even each month of the year. Second, there was a relatively low probability of hedging more than \$2/cwt profit in any month. Because of this, it may be prudent to hedge for a profit whenever the opportunity is available.

Table 2.1. Percent of trading days during feeding period that breakeven +/--\$x could be hedged for calves, 1996-2015

BE +	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
-\$4	70%	68%	79%	82%	84%	75%	63%	44%	42%	38%	50%	63%	63%
-\$3	60%	60%	71%	78%	79%	70%	56%	36%	35%	32%	43%	56%	56%
-\$2	52%	50%	65%	72%	73%	65%	46%	31%	31%	27%	35%	46%	49%
-\$1	43%	43%	58%	67%	68%	58%	37%	26%	26%	21%	27%	38%	43%
\$0	36%	36%	52%	61%	62%	51%	29%	20%	21%	16%	22%	29%	36%
\$1	30%	31%	46%	55%	55%	43%	22%	15%	15%	11%	18%	23%	30%
\$2	25%	25%	37%	51%	47%	36%	15%	12%	9%	9%	14%	18%	25%
\$3	21%	19%	30%	43%	39%	30%	10%	7%	6%	7%	9%	14%	20%
\$4	16%	13%	23%	36%	33%	25%	5%	5%	4%	6%	7%	11%	15%

Table 2.2. Percent of trading days during feeding period that breakeven +/--\$x could be hedged for yearlings, 1996-2015

BE +	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
-\$4	64%	58%	75%	85%	83%	70%	65%	59%	59%	54%	65%	61%	67%
-\$3	58%	52%	67%	80%	80%	60%	56%	49%	52%	47%	58%	54%	59%
-\$2	52%	45%	59%	73%	76%	54%	46%	40%	43%	40%	49%	49%	52%
-\$1	45%	40%	51%	68%	69%	47%	38%	31%	38%	34%	41%	43%	45%
\$0	40%	35%	44%	62%	58%	40%	29%	22%	33%	29%	36%	38%	39%
\$1	37%	30%	37%	54%	47%	34%	20%	17%	26%	23%	30%	32%	32%
\$2	32%	25%	30%	46%	37%	28%	15%	13%	18%	18%	25%	24%	26%
\$3	26%	18%	20%	37%	28%	23%	11%	8%	12%	13%	19%	17%	19%
\$4	18%	11%	15%	25%	23%	18%	7%	7%	7%	10%	15%	12%	14%

... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Cathann A. Kress, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.