

October 1, 2000

Ames, Iowa

Econ. Info. 1798

SEPTEMBER HOGS AND PIGS REPORT ANALYSIS

The September USDA Hogs and Pigs report estimated all hogs and pigs on farms in the U.S. at 60.19 million head, with 6.27 million breeding animals and 53.92 million market hogs. All hogs and pigs are estimated to be 1.0% below the Sept. 1, 1999 number and 5.2% below 1998 numbers. The breeding herd is 0.6% lower and the market hog inventory is 1.0% below September 1, 1999 inventory levels. The breakdown of market hog weights shows all weight categories to be below year earlier levels. The under 60 pound pigs were down 1.0%, 60–119 pounds down 1.0%, 120–179 pounds down 0.7%, and the 180 pound and over pigs were down 1.4%. Table 1 summarizes the report for the U.S. and Iowa.

Most of the estimates in the report came in above the pre-report trade expectations and nearer to the top end of the ranges. All hogs and pigs and market hogs were slightly higher and the breeding herd numbers were 1% above expectations. The June–August pig crop was near expectations, but the farrowings were reported up over 1%. September–November farrowing intentions were up slightly and the December–February numbers came in over 1% higher than expected. Based on the slightly higher numbers, the report should be considered slightly bearish to the market.

The June–August pig crop totaled 25.7 million pigs, down 0.7% from 1999. Sows farrowing during the June–August period were estimated at 2.9 million head, down 0.6%, and the pigs per litter decreased slightly from 8.86 in 1999 to 8.85 in 2000. Farrowing intentions for the September–November period were estimated to be up 1.4% and the December–February intentions are estimated to be up 3.4% higher.

Table 1. September USDA Hogs and Pigs Summary

	US		Iowa	
	1,000 Head	% Change	1,000 Head	% Change
All Hogs and Pigs	60,185	-1.0	15,500	-0.6
Breeding Herd	6,266	-0.6	1,160	0.9
Market Hogs	53,920	-1.0	14,340	-0.8
Under 60 Pounds	20,041	-1.0	4,450	-4.5
60 – 119 Pounds	13,275	-1.0	3,910	-0.8
120 – 179 Pounds	11,047	-0.7	3,220	3.9
180 Pounds and Over	9,557	-1.4	2,760	0.4
Sows Farrowing				
June – Aug	2,903	-0.6	480	-2.0
Sep – Nov Intentions	2,883	1.4	480	-2.0
Dec – Feb '01 Intentions	2,894	3.4	480	5.5
Pig Crop				
June – Aug	25,681	-0.7	4,224	-4.2
Pigs per Litter				
June – Aug	8.85	-0.1	8.80	-2.2

The Iowa numbers show a different pattern than we've seen in the past. Iowa's September 1st breeding herd is up nearly 1% and the market hog inventory is down nearly 1%. Five other states also had increases in their breeding herds: Colorado (+3%), Nebraska (+11%), Oklahoma (+3%), South Dakota (+4%), and Texas (+6%). The breeding herd declined in: Arkansas (-5%), Illinois (-2%), Indiana (-10%), Minnesota (-2%), Missouri (-3%), Ohio (-16%), and Wisconsin (-13%). This reports shows a significant shift in the breeding herd from the east to the west of the Mississippi.

With the breeding herd down less than 1%, pork production could be above year ago levels early in 2001 due to increasing productivity in the breeding herd. The June USDA Hogs and Pigs report put the breeding herd at 6.2 million head, down 4.3% from 1999. Sows farrowing during June–August were only down 0.6% and the slight drop in pigs per litter resulted in the June–August pig crop being down 0.7%. Slaughter weights for 2000 have been running near 1% higher which could put pork production above year earlier levels after the first of the year.

This productivity is estimated to continue based on the September report. The breeding herd is 0.6% lower and farrowing intentions for September–November are up 1.4% and the December–February intentions are up 3.4%. An increase in pigs per litter and slaughter weights could push pork production up 5% by third quarter 2001.

Demand

Demand for pork has been strong at both the retail and live levels for 2000. On the live side, through early September, Federally Inspected slaughter is down 4.0% for 2000. During this same period Iowa-Southern Minnesota live hog prices have averaged nearly \$44 /cwt compared to just over \$30 in 1999, a 45% increase. On the retail side, pork prices set a new record in August for the seventh consecutive month. Retail pork prices in August were 265.6 cents per pound, up 18.8 cents from year earlier levels. Pork production year-to-date through the end of August is down 2.5%, while the average retail pork price for 2000 is up over 7%. Figure 1 shows monthly retail pork and live hog prices.

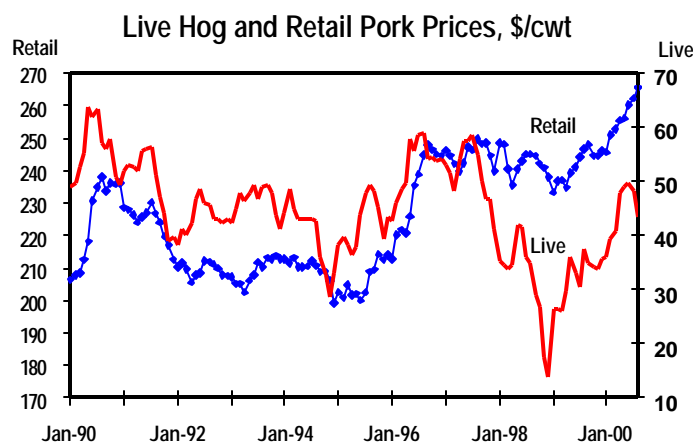


Figure 1

Much of the strength in retail pork prices is due to strong bacon demand. The source of the strong demand for bacon comes primarily from the restaurant and fast food industry that continues to use bacon to improve and enhance sandwiches. Retail bacon prices reached a record high of \$3.20 per pound in August. Wholesale belly prices declined rather sharply in August as supplies increased and the seasonal demand for bacon begins to decline, *but January – August prices averaged 66.9% higher than in 1999.*

Cold Storage

Figure 2 shows pork in cold storage for 1998, 1999, 2000, and the 1995-1999 five-year average. Cold storage stocks continued their seasonal decline falling 25 million pounds from July to August. *While stocks have fallen during*

the summer months, this year's decline has been smaller than previous years. During 1999, cold storage stocks fell 164 million pounds from April to August compared to only a 74 million pound decrease in 2000.

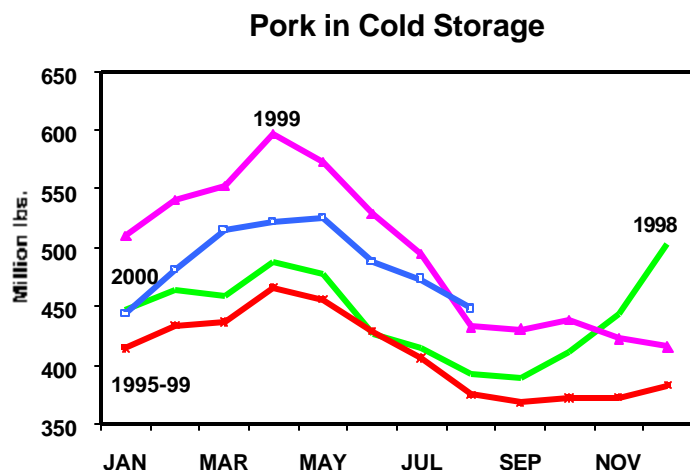


Figure 2

Slaughter

Since the June USDA Hogs and Pigs Report, slaughter numbers have been running very close to the reported numbers. June–August Federally Inspected hog slaughter totaled 23.5 million head, down 2.8% from 24.2 million in 1999. The June report estimated the over-180 pound market hogs 2.6% lower and the 120–179 pound pigs 3.4% lower. Year-to-date Federally Inspected slaughter is down 3.9%.

Since September 1st slaughter has been down about 2.0% from year earlier levels. This is near the report's estimation for hogs weighing over 180 pounds down 1.4%. For the rest of 2000, slaughter numbers should be down 1 to 2%. Total slaughter for 2000 will be approximately 3% below that of 1999. First quarter 2001 slaughter will be near Jan-Mar 2000 levels based on the under 60 pound pig numbers. By the second quarter of 2001, slaughter numbers will begin to exceed year earlier levels based on increases in Sep-Nov farrowing intentions. Third quarter slaughter could be more than 4% above the year before based on the December–February farrowing intentions and increased breeding herd productivity. Total slaughter for 2001 will surpass that of 2000 and could approach the levels seen in 1998 and 1999.

Weekly sow slaughter numbers have also been running below year earlier levels. June–August sow slaughter was 7.2% lower than in 1999. The June 1st breeding herd was down 4.3%. June–August sow slaughter totaled 768 thousand head or 12.3% of the June 1st breeding herd. In 1999 June–August sow slaughter was 12.7% of the June 1 breeding herd. This indicates that producers are beginning to expand the breeding herd. Gilt slaughter data from the University of Missouri for recent months shows a lower percentage of gilts in the slaughter mix, also indicating an expanding breeding herd.

Slaughter Weights

Iowa-Southern Minnesota weekly average hog slaughter weights dropped 0.2 pounds for the week ending September 16th to 255.5 pounds. This was 1.5 pounds or 0.6% above year earlier levels. **For 2000, slaughter weights have averaged 2.4 pounds above year earlier levels.** Figure 3 shows the weekly Iowa-Southern Minnesota slaughter weights. For a further discussion of slaughter weights and its implications on meat production see the previous Iowa Farm Outlook Newsletter at: <http://www.econ.iastate.edu/outreach/agriculture/periodicals/ifo/091500.pdf>

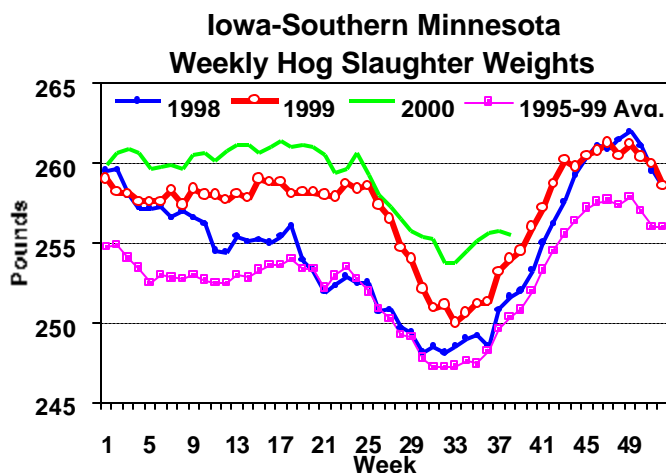


Figure 3

Trade Data

January–July U.S. pork exports totaled 722 million pounds, up 27.3% over 1999. Russian exports are up over 3500%, increasing from 3 million pounds in 1999 to 119 million pounds in 2000. There is some concern that some of those exports occurred during 1999 but didn't get reported until early in 2000. Excluding the Russia numbers, exports are up 9.8%. Nearly 50% of our exports for 2000 have been to Japan. Total exports to Japan are up over 13% for 2000. Exports to Mexico have shown tremendous growth in 2000, up 82%.

January–July U.S. pork imports are up 21.9% over 1999 to 561 million pounds. Pork imports from Canada are up over 26%. Nearly 75% (418 million pounds) of our imports are from Canada. As the Canadian pork production and slaughter industries have grown, they are shipping more pork and fewer slaughter animals to the U.S.

U.S. net pork exports for January–July total 280 million pounds, up 39.7% from 1999. *Excluding the Russian numbers, net pork exports are down almost 20%.* Figure 4 shows the monthly net pork exports for the U.S. The huge spike in net exports in January and February are due to the questionable Russian numbers.

Production and Price Forecast

Several factors will impact prices over the coming year. Supplies of competing meats are expected to be large through the fall and early spring. Poultry supplies should be 4-5% ahead of the year earlier pace. Beef supplies will remain large during October–December, but should return to 2000 levels in the first quarter 2001 and decline relative to the year before in the second quarter and beyond.

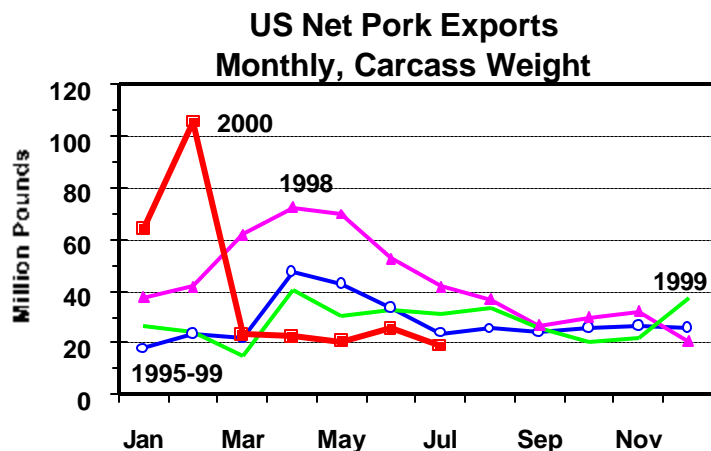


Figure 4

The general economy and consumer spending has been a major supporting factor for meat demand in recent months. There is concern that the higher oil prices and weaker stock market will dampen enthusiasm and consumer expenditures on meats. If that occurs the strong demand that has bolstered the hog market in recent months may weaken. This forecast assumes demand slightly above average, but not at the extremely strong levels seen earlier in 2000.

Fourth quarter 2000 pork production is expected to be unchanged to 1% lower than the same period in 1999 when prices averaged \$34.39/cwt live (Table 2). Hog slaughter is expected to decline 1-2%, but weights have averaged 1% higher in recent weeks offsetting much of the supply decline. Given demand comparable to a year earlier, prices could average near last year's levels to slightly higher.

Table 2. Pork Production and Hog Price Forecast			
Quarter	Production Change	Year ago price	Price forecast
4Q 00	-0%	\$34.39	\$34-37
1Q 01	+0%	39.16	37-40
2Q 01	+2%	48.16	41-44
3Q 01	+4%	43.80	36-39
4Q 01	+5%	34-36	20-30

First quarter 2001 production is forecast to be about the same as Jan-Mar 2000 based on the Jun-Aug pig crop being 1% lower, but with heavier weights. Prices are expected to average slightly lower because of a lower level of demand than we saw in early 2000.

Second quarter 2001 production is expected to be 2-3% higher than the same period this year due to a 1.4% increase in farrowing intentions, larger litters, and heavier weights. Prices will show a year-over-year decrease from the \$48 average this year unless demand is significantly higher than it was in Apr-Jun 2000. However, demand during that period was exceptionally high already and it is doubtful it will continue to grow. A more typical, but still above average, demand scenario will put forecast prices in the low \$40s. Assuming a 3-year average basis, the futures were predicting second quarter prices in the upper \$30s.

Third quarter 2001 production is forecast to be 4-5% higher than this year on a 3.5% increase in farrowing intentions, improvements in pigs weaned and heavier weights. Prices are forecast to average in the mid-to-upper \$30s compared to an average near \$44 this year.

Beyond the Horizon

Although this report provides farrowing intentions out only two quarters and thus slaughter approximately a year out, it is apparent that supplies will continue to build. ***The real danger of extremely low prices is for fourth quarter 2001. Consider this, if farrowings in Mar-May 2001 are only 4% higher than the same period in 2000, the pig crop would increase by 5% due to litter size increases. Slaughter in Oct-Dec 2001 would exceed 1998's record level when prices averaged \$19.12 for the quarter and daily prices fell to the single digits.***

There are two crucial factors that will determine if fall 2001 prices are near \$30 or near \$20. ***First, is packer capacity.*** In 1998, packer capacity was limited and prices dropped significantly lower. The Dubuque Farmland plant stopped killing hogs in June, 2000 and Farmland hopes to expand the Crete, Nebraska plant to offset the loss by next fall. Although some slaughter plants have increased their daily capacity, we have not significantly increased the U.S. packer capacity. Canadian plants may be able to pick up the additional hogs by processing more of their hogs in Canada. However, economics still encourages pigs and slaughter hogs to flow south. Seaboard announced plans to build a new plant across the river from St. Joe, Missouri, but it is very unlikely that it will be operational in a year. Bottom line is that we will be very close to the edge of having enough capacity. If we exceed the capacity, prices will suffer.

The second factor is pork demand. During the fall of 1999, weekly slaughter was identical to that of the fall of 1998 until the middle of November, but prices were \$15 or more dollars higher than 1998 due to stronger demand. If pork is moving through the system at prices high enough for packers to pay overtime and still be profitable, they will

push their plant to the maximum. If much of the extra supply is going into cold storage rather than to the market, packers have less incentive to process more hogs and add to the wholesale supply.

What Can Producers Do???

Market access will be an issue as it was in 1998 if plant capacity is breeched. Having a marketing contract, a cash forward contract for delivery, or being part of a marketing group that has clout with packers can help assure market access. Hedging with futures can help offset futures market price declines, but does not protect against basis risk and market access concerns.

Some producers may have the flexibility to sit out the darkest days, in particular, November and December, 2001. If that is the strategy, those breeding decisions are coming up pretty quickly. Some may choose to exit completely, while others may hunker down and continue marketing through 2001 as they did in 1998.

Things can change between now and this time next year. Supplies *may* not materialize. New packer space *may* be built in time. Or, demand *may* return to the high levels we saw in early 2000. However, producers, who bank on one of these events that are beyond their control and good luck to protect them from low prices, *may* be disappointed.

Alan Vontalge and John Lawrence

GRAIN MARKETS AWAIT UPDATED YIELD FORECASTS

Corn and soybean futures prices will likely trade in a narrow range until USDA provides updated yield estimates on October 12. The September corn yield forecasts likely were more accurate than usual for that date because of the extremely advanced development of the crop in most areas. At this point, there appears to be less uncertainty about corn yields than soybean yields. Beans in Nebraska, Kansas, western Iowa, parts of Missouri, and the delta areas in the mid-South were hard hit by hot, dry weather in late August and early September. ***That pattern likely caused the average soybean size to be smaller than normal, and may also have reduced the average oil content of the beans.*** Impacts are difficult to quantify accurately except through large-scale field sampling and scientific measurements that USDA uses in its crop estimating.

Currently, the trade generally is anticipating a modest decline in both the U.S. corn and soybean crop estimates. Prices appear to be reflecting a U.S. average soybean yield of around 38.5 to 38.75 bushels per acre, down ½ to ¾ bushel per acre from the September estimate. For corn, a U.S. yield of around 140.5 to 141 bushels per acre seems to be expected. That would be down from USDA's September forecast of 141.8 bushels per acre. Even so, the crops will be large and may set new records in total production. USDA is re-surveying acreage to update abandonment, but that is not expected to have much impact on total production. The LDP/Marketing Loan program requires bushels in order to receive payments, and will be an incentive to salvage as much of the crop as possible. With crops valued at the loan rate, most farmers likely will see the cut-off points for abandonment in the 5 to 6 bushel/acre range for soybeans and 12 to 15 bushels/acre on corn. With corn, where cattle operations are present, the yield cut-off may have been higher because of cutting for silage.

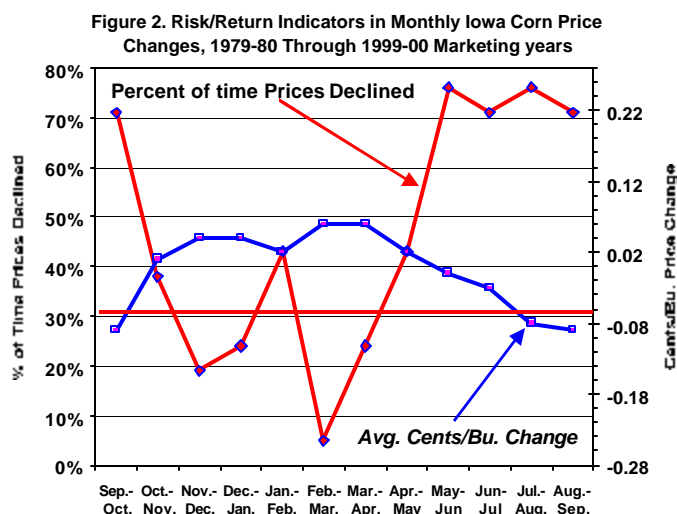
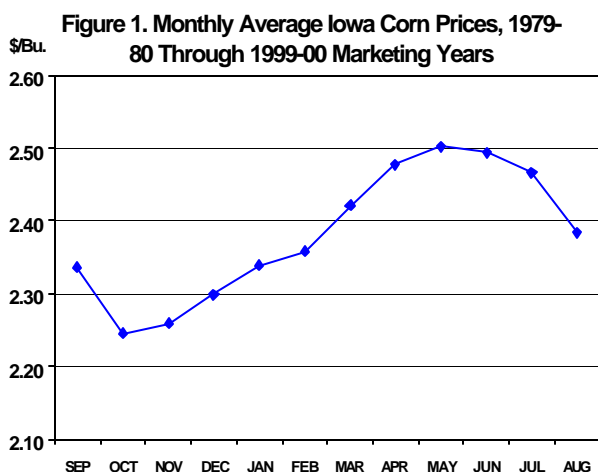
Some corn currently is piled outside at elevators in central and northern Iowa. Managing storage space has been more challenging than usual this fall for elevator managers. With corn being harvested before soybeans in many areas, it has been necessary to estimate how much space will be needed for soybeans, and to put some corn outside even though bins are not completely full. By the beginning of next week, corn and soybean harvesting will probably be about done in central Iowa, a historic first for early completion of harvest. Harvesting also has progressed rapidly in west central Iowa, but is much less advanced in north central and northeast Iowa, Minnesota, Wisconsin, and Michigan. With low prices, the substantial FSA payments in September, and large LDPs, farmers almost certainly will be strong holders of corn and soybeans until after the first of the year. That, and improving export demand, should modestly strengthen the basis and cash prices in November and December, with modest additional strength possible into mid-February.

Weather Developments to Watch

Very low subsoil moisture in the western Corn Belt and hard red winter wheat areas are potentially positive factors in July through December 2001 corn futures and July through November soybean futures. While the U.S. has about 40% of a year's normal usage of wheat (domestic use and exports combined), the world wheat carryover/use ratio currently is indicated to be the lowest since data were reported, and even lower than in 1995-96, when wheat prices reached record highs. The low stocks are not a major concern to the trade as long as prospects for the next year's global wheat crop look satisfactory. But serious and widespread weather problems could strengthen wheat prices considerably, and would help strengthen corn and soybean prices. Currently, the Great Plains from central Nebraska to Texas is extremely dry. Rain is needed soon to get the 2001 winter wheat seedings off to a good start, although it is far too early to write the crop off. In the western Corn Belt, fall and winter soil moisture recharge normally is quite small. Thus, farmers and the grain trade may again face substantial yield and production uncertainty next spring as the planting season begins. That could create a nervous grain market in April, May, and early June.

Seasonal Patterns of Iowa Cash Grain Prices

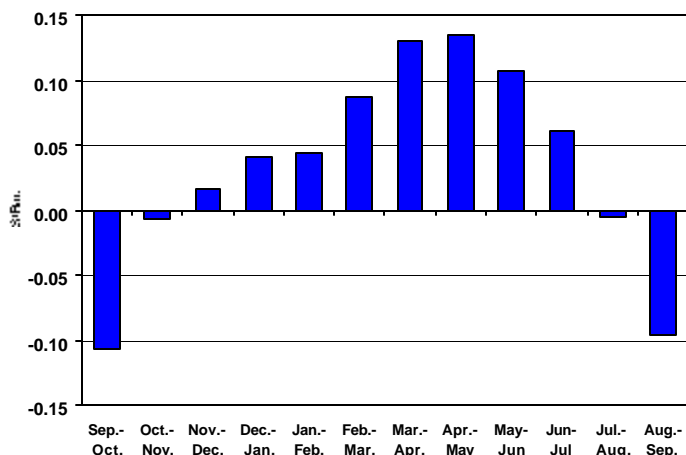
Storage is a common marketing alternative for most farmers, but how much risk and return does it typically offer? The charts below provide some indication, based on Iowa monthly average grain prices for the 1979-80 through 1999-00 marketing years. Figure 1 shows the monthly average corn price, averaging all years together. Figure 2 shows the percent of time that prices have declined from one month to the next. Note that for storage beyond May, month-to-month prices have declined over 70% of the time for storage from June through September. The period of relatively low risk of declining prices is from October to May. During late February and early March, however, Freedom to Farm may bring more downside risk than historically. That's because heavy use of the LDP feature increases the chance for increased farmer marketings during that period to meet large spring cash-flow needs. Figure 3 shows the historical return over interest costs for storing corn month-by-month from October. ***On average, the returns peaked out in May, with about 13 cents per bushel left to cover other storage costs. This year, as in the last two years, the market is offering substantially larger returns than this through storage hedges.***



Currently, the July 2001 futures contract is \$0.30 higher than the November 2000 contract, and a strengthening of at least 10 to 12 cents in the basis under nearby futures appears likely from harvest time to next mid-May. These two elements are the gross return for hedged storage. ***They indicate that the market is signaling to farmers that it is willing to pay around \$0.40 per bushel for corn stored, sold on the July 2001 futures contract, and held until next May or early June. For well-managed farm storage, a significant profit potential exists with this alternative, and it removes downside price risk that is present when the LDP is taken at harvest.*** For elevator storage, the profit potential is more questionable but still worth checking out. Storage into mid-winter in town may be more feasible.

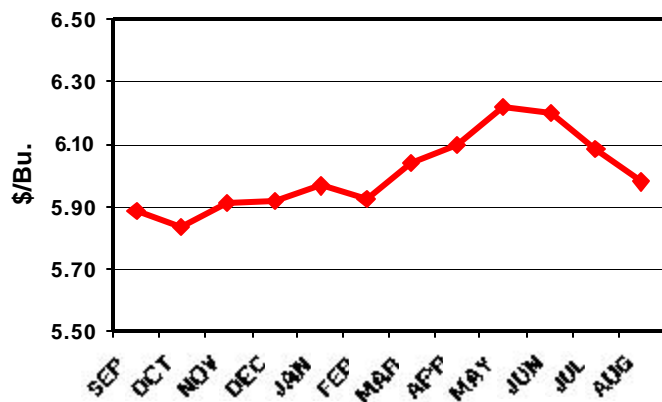
Non-hedgers may want to check out the types of forward contracts available at local elevators. In some cases, contracts may offer similar opportunities without the need for margin deposits or transactions with commodity brokers.

Average Iowa net return over interest cost for on-farm storage of corn, 1979-80 through 1999-00

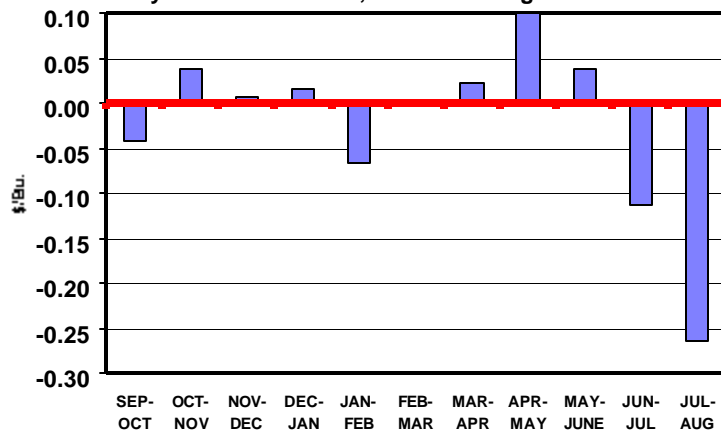


The remaining figures show the historical pattern of monthly soybean prices and return over average interest cost. As with corn, the price risk for storing beyond May is large, and the return over interest cost reaches a peak, on average, in May. *Current gross hedging returns for storing soybeans until next May are around \$0.44 to \$0.48 per bushel in Central Iowa. Interest costs for storage until May are around 8 cents on corn and 22 cents on soybeans for those who use marketing loans. For those who take the LDP this fall, the corn commercial interest cost may be a fraction of a cent higher, recognizing that less than the full loan-rate value of the corn is being financed and that the LDP provides the rest of the value and is immediately available. For soybeans, with the adjustment for the LDP, the extra cost of commercial financing will typically be \$0.02 to \$0.025 per bushel. The market is offering around 32 cents return over interest cost for corn storage, and around 22 to 26 cents for soybeans when the ML is used.*

Iowa Monthly Average Soybean Prices, 1979-80 through 1999-2000 Marketing Years



Average Iowa return over interest cost for storing soybeans on the farm, 1979-80 through 1999-00



LDP Strategies

Table 1 shows net returns versus taking the LDP and selling the corn at harvest, with alternative local cash corn price scenarios. The returns are net increases from harvest sales and taking the LDP, after deducting any interest, storage, and transaction costs. FS stands for Farm Storage, OFFS designates off-farm storage, Call indicates July call options were purchased to retain upward price flexibility, and put indicates July put options were purchased to protect against futures price declines. Note that with the "No Change in local cash prices" scenario, July futures would decline

substantially by May as the November-July price spread and the basis improvement work their way into local cash prices. *Some basis risk is involved in storage hedges, but this historically has been much less than the price level risk.* These calculations indicate that the decision of how to handle the LDP/ML is complex and depends on your assessment of price prospects for later on in the year. *The chances that local cash prices will remain at harvest-time levels next May look quite low, so the extreme left column probably can be viewed as a worst-case or almost worst-case scenario through May. It is much more of a possibility if the corn is stored into next summer. For storage into May, the more likely scenarios are the second and third columns from the left.* Note that the difference between the storage with the ML and with the LDP with low prices is an interest cost advantage available through the lower CCC interest rate. For the large increases in local cash prices, the ML has the disadvantage that the harvest-time LDP has been given up in exchange for a below-commercial interest rate.

Marketing Loan Strategies		LDP Alternatives, Examples fall 2000		Cash Price Change, Harvest to Mid-May			
N.Cent. Iowa		N.Cent. Iowa, 9/27/00		NoChange	Covers farm storage cost	Equals Harv. LDP	Up \$.75
9/27/00							
July futures change, fall to mid-May (Calculated internally)		Cash price change, Oct. to mid-May		0	\$0.17	\$0.40	\$0.75
Implied July futures price (Calculated internally)		Implied July futures price		\$1.75	\$1.92	\$2.15	\$2.50
Example Mid-May cash price (Calculated internally)		Mid-May cash price		\$1.45	\$1.62	\$1.85	\$2.20
Harvest LDP (Calculated internally)		Harvest LDP		\$0.40			
Loan rate: \$1.76		Loan rate:		1.76			
		Current July futures price		2.21			
Harvest to Mid-May:		FUTURES PRICE CHANGE		-0.46	-0.29	-0.06	0.29
Harv. sale + LDP					(Net Gain Over Harv. Sale + LDP, \$ per Bu.)		
(Gain over Harvest cash price)		Harv. sale-LDP		\$0.40	\$0.40	\$0.40	\$0.40
		(UP = Unpriced)					
Farm Store Plus LDP, no pricing		FS-LDP-UP		-\$0.17	\$0.00	\$0.23	\$0.58
Off-farm Store + LDP, No pricing		OFFS-LDP-UP		-\$0.39	-\$0.39	\$0.01	\$0.36
Farm Store, MKTG. Loan, no pricing		FS-ML-UP		-\$0.08	-\$0.08	-\$0.08	\$0.18
OFF-Farm Store, MKTG. Loan, no pricing		OFS-ML-UP		-\$0.30	-\$0.30	-\$0.30	-\$0.04
Farm Store + LDP + Heged**		FS-LDP-HG		\$0.28	\$0.28	\$0.28	\$0.28
OFF-Farm Store + LDP + Heged**		OFS-LDP-HG		\$0.06	\$0.06	\$0.06	\$0.06
Farm Store + MKTG. loan + Heged**		FS-ML-HG		\$0.37	\$0.37	\$0.37	-\$0.09
Off-Farm Store + MKTG. loan + Heged**		OFS-ML-HG		\$0.15	\$0.15	\$0.15	-\$0.31
Approx. Farm Store+Hedge + LDP +\$2.30 Call Purchase		FS-LDP-HG-CALL		\$0.10	\$0.10	\$0.10	\$0.39
Farm store + LDP + \$2.20 Put Purchase		FS+LDP+PUT		\$0.16	\$0.16	\$0.16	\$0.46
Farm store + LDP + @ Money Put Purchase		FS-ML-PUT		\$0.25	\$0.25	\$0.25	\$0.06
FS=farm storage, OFS=off-farm storage, ML=Marketing Loan, HG=storage hedge to mid-May, put = put purchase, call= call purchase.		FS=farm storage,		* 2001 Drought Scenario			

Export Sales Update

USDA's September 28 export sales report shows the following percentage changes from last year in shipments to date and outstanding unshipped new-crop export sales for soybeans and soybean products.

Percent Change vs. a Year Ago.

Corn	-9	Soybean Meal	-43
Soybeans	+9	Soybean Oil	-92

Robert Wisner

Storage Hedge 9/26/00

July futures	\$2.21
Less expected basis	.30
Less Costs	.01
Expected hedge price	1.90
Current new-crop bid	1.45
Gross Storage Return	.45
Farm storage costs	.20
Potential storage profit	.25
LDP	.40
Net gain over cash price	.65
Effective net price	2.10
AMTA Pmt./bu of production	.48