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# LARGE CROPS, STRENGTHENING CORN DEMAND TO BRING SEASONALLY HIGHER PRICES

USDA's October 12 crop estimates placed U.S. corn and soybean yields below the September forecasts, but indicated that this year's production of both crops will be record large. For corn, it will be the first record production since 1994. U.S. corn supplies are estimated to be 6% or 678 million bushels above last year. Soybean yield estimates declined more than corn because of smaller than normal bean sizes due to adverse weather in August. But a 4.2% (125 million bushel) increase in total supplies this fall from the year ago level is indicated. Despite sharply below normal yields in parts of west central and northwest Iowa, feed supplies for the next 8 or 9 months and possibly longer are likely to be priced at low levels and will be ample to meet demand. Drought was concentrated mainly in western Iowa, Nebraska, Kansas, some pockets in Missouri, and the South. Eastern Corn Belt yields were sharply above last year's low levels. Iowa had the largest per bushel decline from September to October in both corn and soybean yield estimates.

World feed grain supplies are projected to increase at a slightly slower rate than the long-term demand growth, while the trend in world soybean production is projected to accelerate slightly. Competition in oil and meal markets from Canadian canola and European rapeseed will likely decline, but competition from South American and Chinese soybeans is expected to increase by more than an offsetting amount. Rainfall was well above normal in much of Brazil in September, and soil moisture looks good to adequate in many areas as the planting season approaches. Brazil's currency has been weak, and the 30 cent higher than a year ago soybean futures prices signal that expanded plantings are likely there. Argentina has some dry areas that may cause market nervousness this winter, unless rainfall patterns revert to near normal. With these prospects and an expected strong rise in U.S. corn exports to offset drought in north China, increased demand should absorb about 60% of the increase in U.S. corn supplies. That is expected to bring a modest increase in carryover stocks by August 31, 2001 and will likely limit the upward potential in prices unless the Corn Belt has widespread adverse weather next year. For soybeans, increased demand also is expected to absorb about 60% of the increased supply.

While corn export prospects look quite good, export sales are off to a slow start, with shipments and sales running 5% below last year in USDA's October 6 Export Sales Report. Soybean sales and shipments were up 2% in the report, while meal and soybean oil were down 48 and 88%, respectively. After losing the EU corn market, the U.S. now essentially has lost the once-large EU soybean meal market as well. The decline in U.S. soybean meal exports to EU in the last two years was equivalent to the meal from 73 million bushels of soybeans. GMOs are believed to be a factor in loss of these markets. The "Starlink" situation may cloud corn export prospects somewhat. The U.S. FDA approval of "Starlink" was for feed and non-food industrial uses only, and it was specifically excluded from approval for being exported. An unknown amount of Starlink corn has been co-mingled with supplies of other corn in U.S. marketing channels. Japan, our largest corn export customer, will have a labeling program in effect next April 1, for corn used for food purposes. Its equivalent of the FDA not only prohibits imports of such corn with a zero tolerance level, it also provides stiff penalties and jail sentences for people who violate this regulation. Starlink may also increase uncertainty about U.S. corn gluten feed and meal exports to EU, which is our largest market for these byproducts of corn processing.

### **Corn Demand Prospects**

With supply uncertainty largely behind us, the markets will now focus increasingly on demand. For corn, a dominant feature of export demand is that China's corn crop will be down substantially from last year due to drought and a shift of acreage into soybeans. China has been the world's second largest corn exporter much of the time since the early 1980s, except for 1994-95 and 1995-96. In the latter year, China was a major factor pushing corn prices to new record highs. This year's average Chinese corn yield is estimated to be as low as in 1994, when weather problems took China out of the export market for two years. However, September 1, 2000 Chinese carryover stocks of old-crop corn are estimated to be more than double those going into the 1994-95 marketing year, and China's corn acreage is believed to be significantly above that of 1994 and 1995. China is continuing to make corn export sales, but at a less aggressive pace than in recent months. Its total exports appear likely to be down 225 to 275 million bushels from last season, which will create temporarily increased export demand for U.S. corn. Additionally, domestic corn feeding will remain large and corn processing will continue to expand. Increased demand should absorb about two-thirds of the expected increase in U.S. corn supplies. Barring major 2001 weather problems, the excess production is likely to keep cash corn prices in a range similar to that of last season. However, spring and early summer markets likely will reflect nervousness about low soil moisture supplies.

## **Soybean Supply-Demand**

Both supply and demand prospects are more uncertain for soybeans than for corn. Major uncertainties on the demand side are (1) China's import needs and (2) South America's likely harvest next spring. China's 2000 soybean acreage is estimated to be 14% above that of last year due to a shift from corn and wheat into soybeans in response to lower corn price supports. China was the major reason for the strong increase in 1999-2000 U.S. soybean exports. Current indications are that its import demand will at least grow more slowly than last season, and may possibly even decline a little. While USDA's September World Oilseed Report shows only about a one percent increase expected in South American soybean acreage, trade sources indicate a 5 to 10% increase is more likely in Brazil. For much of that nation, September rainfall was well above normal and soil moisture supplies look favorable. For Argentina, parts of its corn/soybean area had well below normal rainfall in September, and in some areas subsoil moisture is low. Farmers in these countries base soybean planting decisions, not on depressed U.S. harvest-time cash prices, but on May and July futures, which recently have been 70 to 77 cents above central Iowa cash prices. Prices for delivery next spring are running about 30 cents higher than last fall when South American farmers made planting decisions.

Tables 1 and 2 show my projections of corn and soybean supplies, utilization, carryover stocks and prices for the year ahead, and a look at 2001-02 supply-demand prospects with alternative yields. Seasonal patterns for the last 20 years for monthly Iowa cash prices show an average increase from October to May of about 22 cents for corn and 38 cents for soybeans. Increases of this size from October to next May appear quite likely this marketing year, although there is some uncertainty about soybean prices during late February and early March.

#### **Marketing Considerations**

Typical on-farm corn and soybean storage costs are about 19 and 35 cents per bushel, respectively, when all costs except bin ownership are considered. Recent futures prices have offered significantly larger returns for storage hedges for May-early June delivery than average seasonal cash price patterns, for those who understand and are comfortable with use of futures market hedges.

LDPs show a high probability of declining this winter and next spring as cash prices strengthen. The 60-day lockin feature for posted county prices and the one-day lag in changing the PCP can be helpful features in managing LDPs. If you take LDPs this fall, be aware that you are exposed to downward price risk. This risk is greatest after May. Over the last 20 years, cash Iowa corn prices have declined 70% of the time or more from one month to the next from May until October. The same was true of Iowa average monthly soybean prices, except for July, when the percentage of declining prices dropped into the mid-60s. Alternatives for dealing with the down-side price risk after

U.S. SOYBEAN BALANCE SHEET									
10/12/00						PROJ.	PRO.	J. 2001-02	
SUPPLIES:	1994-5	1995-6	1997-8	1998-9	1999-00	<u> 2000-01</u>	Α	В	С
HARV. A.,MIL.	60.9	61.6	69.1	70.4	72.5	72.9	73.4	73.5	73.5
BU./A.	41.4		38.9	38.9	36.5	38.7	35.0	39.5	41.5
PRODUCTION	2,517		2,689		2,643	2,823	2,569	2,903	3,050
IMPORTS	5	-	5		•	8	4	4	4
CARRYOVER	209		132			288	288	288	288
TOTAL	2,729	2,514	2,826	2,945	2,994	3,119	2,861	3,195	3,342
UTILIZATION:	•	,	•	•	•	ŕ	·	·	ŕ
CRUSH	1,405	1,370	1597	1590	1,580	1,600	1,585	1615	1615
EXPORTS	838	-	870		980	1,000	1,010	1020	1020
OTHER DOMESTIC	151	109	158	205	147	179	160	170	170
TOTAL	2,395	2,330	2,626	2,596	2,707	2,779	2,755	2,805	2,805
CARRYOVER	335	-	200	•	288	340	106	390	537
U.S. AVG. PRICE, \$/Bu.	5.48	6.72	6.47	4.93	4.65	4.80	6.60	4.40	4.30
IA. AVG. PRICE, \$/Bu.	5.38	6.67	6.37	4.83	4.55	4.70	6.50	4.30	4.20
N.C.IA.HARV.PRICE	4.90	6.75	6.05	4.80	4.35	4.45	6.40	4.05	3.95
MEAL DECATUR, \$/T 48%	\$163	\$236	\$186	\$139	\$148	\$170	\$225	\$152	\$143
MEAL, 44%	\$153	\$222	\$174	\$129	\$140	\$160	\$213	\$144	\$135
SOY OIL, DECATUR	27.5		25.8		15.6	16.0	19.0	15.0	15.0
NOV. FÚT. AT HRV., \$/ Bu.	5.28	7.15	6.50	5.30	4.95	5.05	7.00	4.65	4.55
Probability							20%	60%	20%
CARRYOVER/USE %	14.0%	7.9%	7.6%	13.4%	10.6%	12.2%	3.8%	13.9%	19.1%
CORN BAL.SHEET (MIL.BU.)					Proj.	Proj.	PROJ	.2001-02	
10/12/00	1994-95	1995-96	1997-98	1998-99	-	2000-01	Α	В	С
Plant. A(mil.)	79.2		79.5	80.2	77.4	79.6	79.6	79.5	79.6
Harv.A.(mil)	72.9		72.7			73.0	72.6	73.0	73.4
Bu./A.	138.6		126.7			139.6	112.0	139.0	141.5
Production	10,103		9,207			10,192	8,131	10,147	10,386
IMPORTS	7	•	9		•	10	10	10	10
Carryover	850		883		1,787	1,715	1,867	1,867	1,867
Total	10,960	-	10,099	11,086	11,239	11,917	10,008	12,024	12,263
UTILIZATION:	-,	-,-	-,	,	,	,-	.,	,-	,
Feed & resid.	5,533	4,711	5,505	5,496	5,679	5,800	5,400	5750	5775
Food, ind. & seed	1,693		1,782			1,975	1,955	1990	2005
Exports	2,177		1,504	-	1,925	2,275	2,000	2075	2100
Total	9,402	-	8,791		9,524	10,050	9,355	9,815	9,880
Carryover	1,558	-	1,308		1,715	1,867	653	2,209	2,383
U.S. FARM PRICE	\$2.26	\$3.95	\$2.43	\$1.94	\$1.80	\$1.80	\$2.85	1.60	1.55
IOWA AVE. PRICE	2.2		\$2.33	1.84		1.70	2.75	1.50	1.45
HARV. PRICE, C.IA	1.80	-	2.40			\$1.50	\$2.65	1.35	1.25
DEC. FUT. @ HARV.	2.20		2.80			\$2.02	\$3.15	\$1.90	\$1.85

20%

60%

20%

**LONG-TERM PROBABILITY** 

the LDP has been taken include: (1) buying July or September put options, (2) selling with hedges or forward contracts and purchasing July or September call options to retain upward price flexibility, (3) selling on minimum price contracts, or (4) using the marketing loan (ML) instead of the LDP. However, use of the ML means you give up attractive LDP opportunities this fall. If you use Certificates to pay off MLs to avoid the payment limit, be aware that the marketing loan gain is taxable, even though FSA does not send in a 1099 to the IRS.

Plan to get an early start on your 2001 marketing program. Important elements include cash-flow needs for your business, financial risk-bearing ability, whether you will use CRC or Fall-price RA crop revenue insurance to insure lost bushels at harvest replacement value, and whether you will use forward pricing tools. These insurances can be important companion tools for pre-harvest pricing, by providing coverage to buy back oversold forward contracts if you have low yields. Over the last 25 years, spring new-crop prices for corn and soybeans have been above harvest time prices 80% of the time. New-crop pricing during the spring involves some exposure to risk of higher prices, which can be managed with options purchases. The 20% of the years when prices rose from spring to fall were years of widespread adverse weather across the Midwest.

#### **Robert Wisner**

## **CATTLE FEEDING OPPORTUNITIES**

Harvest is wrapping up and farmers are considering cattle feeding opportunities and cow herds are evaluating whether to sell their calves or retain ownership this year. The feeder cattle market is currently reflecting quite a bit of optimism among buyers. In early October 500-600 pound steer calves were trading in the \$95-115/cwt range pushing breakevens well into the \$70s. However, once the steer is bought, it may be too late to think about marketing.

The following tables reflect the breakeven purchase price for steer calves and yearling steers at various corn and feed cattle prices and a given set of assumptions. It has a profit target of \$0/head reflecting the most a buyer could pay and still breakeven.

As an example using these assumptions and predicting that the fed cattle would sell for \$73/cwt when the cattle were sold next year a producer valuing his corn at \$1.60 could pay up to \$100.57/cwt for a steer calf or \$89.21 for a yearling steer. If the selling price is \$75 the purchase price could increase to \$104.55 for calves and \$92.38 for the yearlings.

The small table at the bottom indicates the expected change in breakeven purchase price from a change in some of the assumptions. Thus, for each \$10/head increase in profit per head the purchase price would have to decrease \$1.77/cwt for calves and \$1.29/cwt on yearlings.

A better way to use this information is for producers to input their own production numbers and develop a bid sheet for different classes of feeder cattle. This cattle feeding budget worksheet is available on the internet at <a href="http://www.econ.iastate.edu/faculty/lawrence/">http://www.econ.iastate.edu/faculty/lawrence/</a> in the Beef Industry Materials under the Decision Making Tools section.

# Feeder Cattle Budget Worksheet Prepared by Iowa State University Extension Economics (515-294-6290)

T7	C 441	D 1	T	Th 1	D
Heeder	Cattle	Kreak	H.Ven	<b>Purchase</b>	Price

Steer Calf	Corn			Fed Cattle Selling Price				
21112	Assumptions	Price	\$69.00	\$71.00	\$73.00	\$75.00	\$77.00	
In weight	550	\$1.20	97.09	101.06	105.04	109.02	112.99	
Out weight	1150	\$1.40	94.86	98.83	102.81	106.78	110.76	
Target ADG	2.85	\$1.60	92.62	96.60	100.57	104.55	108.52	
Death loss	1.50%	\$1.80	90.39	94.36	98.34	102.31	106.29	
Corn (bu)	63	\$2.00	88.15	92.13	96.10	100.08	104.05	
Hay (ton)	0.5	\$2.20	85.92	89.89	93.87	97.84	101.82	
Hay Price (\$/t)	\$60.00	\$2.40	83.68	87.66	91.63	95.61	99.58	
Supplement (\$/hd)	\$30.00	\$2.60	81.45	85.42	89.40	93.38	97.35	
Interest	9.0%	\$2.80	79.21	83.19	87.17	91.14	95.12	
Yardage (\$/hd/day)	\$0.25	\$3.00	76.98	80.96	84.93	88.91	92.88	
Vet-Med	\$12.00	\$3.20	74.75	78.72	82.70	86.67	90.65	
Trucking	\$15.00	\$3.40	72.51	76.49	80.46	84.44	88.41	
Other	\$5.00	\$3.60	70.28	74.25	78.23	82.20	86.18	
Target Return	\$0.00	\$3.80	68.04	72.02	75.99	79.97	83.94	
<b>T 11 G</b>		~		a				
Yearling Steer		Corn	Fed Cattle			<b>4==</b> 00	<b>4==</b> 00	
G	Assumptions	Price	\$69.00	\$71.00	\$73.00	\$75.00	\$77.00	
In weight	750	<b>Price</b> \$1.20	<b>\$69.00</b> 86.13	<b>\$71.00</b> 89.30	<b>\$73.00</b> 92.47	95.64	98.80	
In weight Out weight	750 1250	Price \$1.20 \$1.40	<b>\$69.00</b> 86.13 84.50	<b>\$71.00</b> 89.30 87.67	<b>\$73.00</b> 92.47 90.84	95.64 94.01	98.80 97.18	
In weight Out weight Target ADG	750 1250 3.2	Price \$1.20 \$1.40 \$1.60	<b>\$69.00</b> 86.13 84.50 82.87	<b>\$71.00</b> 89.30 87.67 86.04	\$73.00 92.47 90.84 89.21	95.64 94.01 92.38	98.80 97.18 95.55	
In weight Out weight Target ADG Death loss	750 1250 3.2 0.75%	Price \$1.20 \$1.40 \$1.60 \$1.80	\$69.00 86.13 84.50 82.87 81.25	<b>\$71.00</b> 89.30 87.67 86.04 84.41	\$73.00 92.47 90.84 89.21 87.58	95.64 94.01 92.38 90.75	98.80 97.18 95.55 93.92	
In weight Out weight Target ADG Death loss Corn (bu)	750 1250 3.2 0.75% 63.0	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00	\$69.00 86.13 84.50 82.87 81.25 79.62	\$71.00 89.30 87.67 86.04 84.41 82.79	\$73.00 92.47 90.84 89.21 87.58 85.95	95.64 94.01 92.38 90.75 89.12	98.80 97.18 95.55 93.92 92.29	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton)	750 1250 3.2 0.75% 63.0 0.35	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33	95.64 94.01 92.38 90.75 89.12 87.50	98.80 97.18 95.55 93.92 92.29 90.66	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t)	750 1250 3.2 0.75% 63.0 0.35 \$60.00	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70	95.64 94.01 92.38 90.75 89.12 87.50 85.87	98.80 97.18 95.55 93.92 92.29 90.66 89.04	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd)	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd) Interest	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00 9.0%	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60 \$2.80	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73 73.11	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90 76.27	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07 79.44	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24 82.61	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41 85.78	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd) Interest Yardage (\$/hd/day)	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00 9.0% \$0.25	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60 \$2.80 \$3.00	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73 73.11 71.48	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90 76.27 74.65	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07 79.44 77.82	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24 82.61 80.98	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41 85.78 84.15	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd) Interest Yardage (\$/hd/day) Vet-Med	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00 9.0% \$0.25 \$8.00	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60 \$3.00 \$3.20	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73 73.11 71.48 69.85	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90 76.27 74.65 73.02	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07 79.44 77.82 76.19	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24 82.61 80.98 79.36	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41 85.78 84.15 82.53	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd) Interest Yardage (\$/hd/day) Vet-Med Trucking	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00 9.0% \$0.25 \$8.00 \$15.00	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60 \$2.80 \$3.20 \$3.40	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73 73.11 71.48 69.85 68.22	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90 76.27 74.65 73.02 71.39	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07 79.44 77.82 76.19 74.56	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24 82.61 80.98 79.36 77.73	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41 85.78 84.15 82.53 80.90	
In weight Out weight Target ADG Death loss Corn (bu) Hay (ton) Hay Price (\$/t) Supplement (\$/hd) Interest Yardage (\$/hd/day) Vet-Med	750 1250 3.2 0.75% 63.0 0.35 \$60.00 \$12.00 9.0% \$0.25 \$8.00	Price \$1.20 \$1.40 \$1.60 \$1.80 \$2.00 \$2.20 \$2.40 \$2.60 \$3.00 \$3.20	\$69.00 86.13 84.50 82.87 81.25 79.62 77.99 76.36 74.73 73.11 71.48 69.85	\$71.00 89.30 87.67 86.04 84.41 82.79 81.16 79.53 77.90 76.27 74.65 73.02	\$73.00 92.47 90.84 89.21 87.58 85.95 84.33 82.70 81.07 79.44 77.82 76.19	95.64 94.01 92.38 90.75 89.12 87.50 85.87 84.24 82.61 80.98 79.36	98.80 97.18 95.55 93.92 92.29 90.66 89.04 87.41 85.78 84.15 82.53	

# Change is breakeven purchase price for a given change in key variables

Variable	Change	Calf	Yearling
Profit / Head	+\$10/head	-1.77	-1.29
Yardage	+.01/hd/day	-0.37	-0.20
ADG	+10%	1.40	0.90
Feed:Gain	-10%	3.30	2.06
Out wt and feed	+10%	8.18	7.22