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U.S. WHEAT AND FEED GRAIN OUTLOOK

1988

UNIVERSITY OF CALIFORNIA
DAVIS
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by

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Cooperative Extension Service - Dept. of Ag. Economics
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at

The 1988 AAEA Extension Outlook Session
August 1, 1988
Knoxville, Tennessee

Wheat -- Statistics

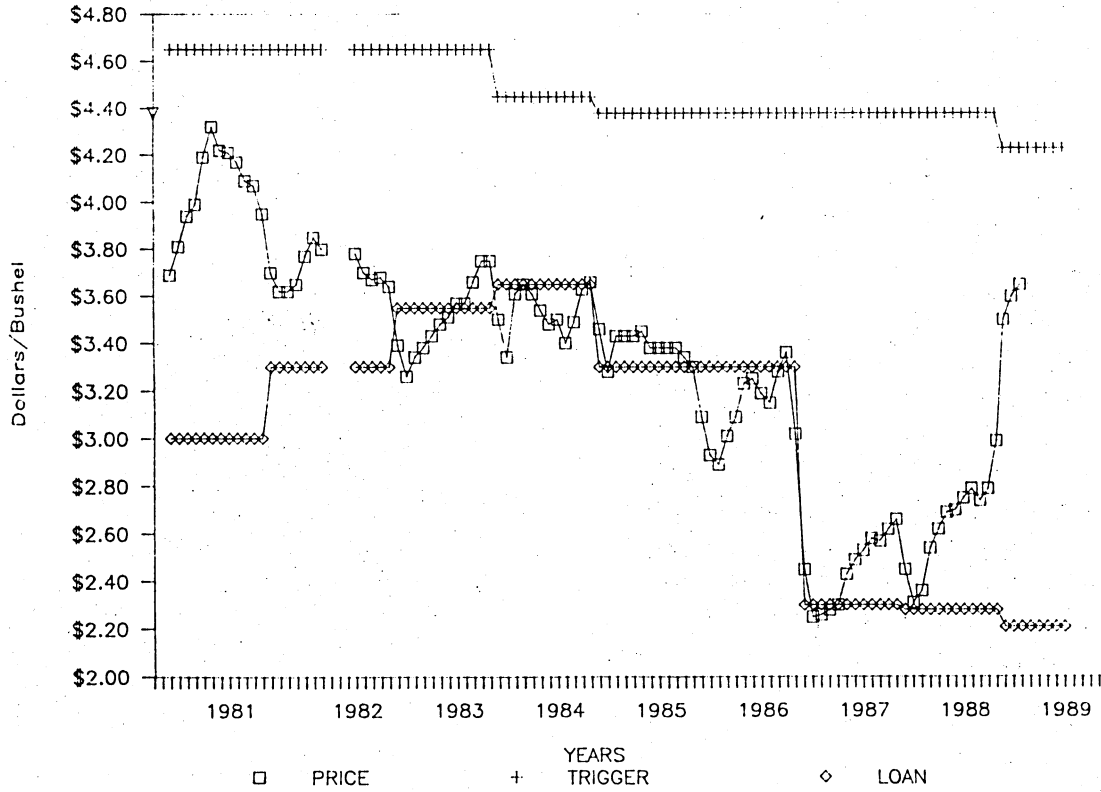
WHEAT COMMENTS

- WHEAT PRICES THIS YEAR ARE A FUNCTION OF:
 - 1) EEP
 - 2) WORLD WHEAT TRADE
 - 3) 1989 SET-ASIDE AND CRP
- WORLD WHEAT TRADE IS PROJECTED TO DROP BY 8-15 MMT (7-13%) DUE:
 - 1) REDUCED SOVIET AND CHINESE IMPORTS
 - 2) LESS AGGRESSIVE TRADE SUBSIDIES BY U.S.
 - 3) HIGHER WORLD WHEAT PRICES
- U.S. WHEAT EXPORTS ARE PROJECTED TO DECLINE BY 500 MILLION BUSHELS.
- EXPECT A CONTRA-SEASONAL DECLINE IN WHEAT PRICES, PARTICULARLY AS HARVEST APPROACHES. KCBT JULY WHEAT FUTURES COULD REACH LOWS OF \$2.25-2.50.
- THIS PRICE PATTERN IS DEPENDENT ON USDA ADMINISTRATION OF EEP.

- WILD CARDS:

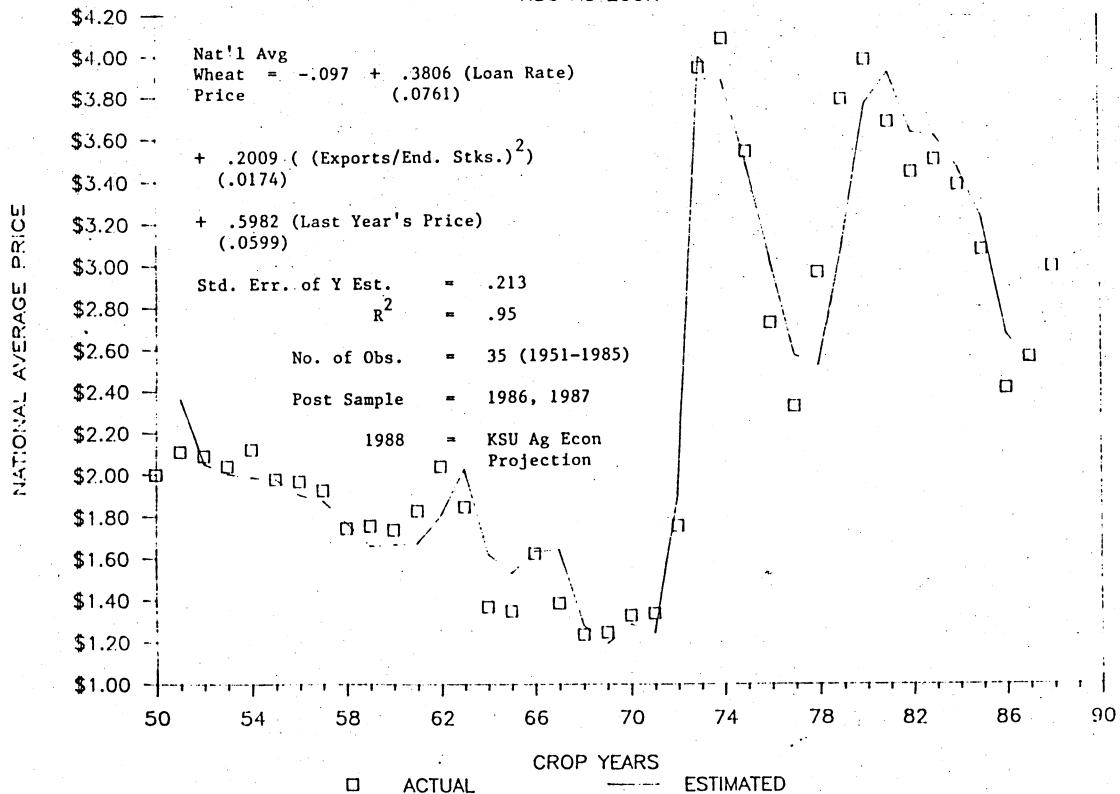
- 1) AUGUST WEATHER AND ITS IMPACT ON SOYBEANS AND CORN.**
- 2) USSR AND CHINA IMPORT REQUIREMENTS.**
- 3) EXPORTABLE SUPPLIES OF WHEAT FROM BIG 4 COMPETITORS (AR, AS, CN, EEC).**

WHEAT: PRICE, LOAN, TRIGGER



WHEAT PRICE FORECASTING MODEL

KSU AG ECON



USSR & CHINA

WHEAT SUPPLY-DEMAND BALANCE TABLE

JULY/JUNE	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	KSU - 87/88	KSU - 88/89
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----Million Metric Tons-----												
<u>USSR</u>												
Area Harv. (Mln Ha)	62.0	62.9	57.7	61.5	59.2	57.3	50.8	51.1	50.3	48.7	46.7	48.5
Yield (Mt/Ha)	1.49	1.92	1.56	1.60	1.37	1.47	1.53	1.34	1.55	1.89	1.78	1.92
Production	92.2	120.8	90.2	98.2	81.1	84.3	77.5	68.6	78.1	92.3	83.3	93.0
Imports	6.7	5.1	12.1	16.0	20.3	20.8	20.5	28.1	15.7	16.0	21.5	14.0
Imports from U.S. ¹	3.4	2.6	4.1	2.9	6.3	3.3	4.1	6.3	.2	0.0	12.6	4.5
Exports	1.0	1.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
Total Utilization	106.8	106.5	114.8	112.7	104.7	100.6	93.0	91.2	91.6	102.8	100.5	102.0
Stocks Change	-8.9	17.9	-13.0	1.0	-4.0	4.0	4.5	5.0	1.7	5.0	3.8	4.5
<u>CHINA</u>												
Area Harv. (Mln Ha)	28.0	29.2	29.4	29.2	28.3	27.9	29.1	29.6	29.2	29.6	28.9	29.5
Yield (Mt/Ha)	1.46	1.85	2.13	1.89	2.11	2.45	2.80	2.97	2.94	3.04	3.03	3.02
Production	41.0	54.0	62.7	55.2	59.6	68.4	81.4	87.8	85.8	90.0	87.7	89.0
Imports	8.6	8.0	8.9	13.8	13.2	13.0	9.6	7.4	6.6	8.5	14.5	11.0
Imports for U.S. ¹	0.0	2.6	1.6	8.4	7.7	5.2	2.8	2.7	.6	.1	4.3	1.6
Exports	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 Utilization	49.6	62.1	66.6	76.0	78.8	79.4	83.0	92.2	100.4	101.5	105.2	100.0
Stocks Change	0.0	-0.1	5.0	-7.0	-6.0	2.0	8.0	3.0	-8.0	-3.0	-3.0	0.0

¹ JUNE/MAY U.S. Grain Inspections

July 25, 1988

US WHEAT SUPPLY-DEMAND BALANCE TABLE

JUNE/MAY	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	KSU - 87/88	KSU - 88/89
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----Million Bushels-----												
Planted Acres	75.4	66.0	71.4	80.8	88.3	86.2	76.4	79.2	75.6	72.1	65.8	65.9
Harvested Acres	66.7	56.5	62.5	71.1	80.6	77.9	61.4	66.9	64.7	60.7	55.9	52.3
Yield	30.7	31.3	34.2	33.5	34.5	35.5	39.4	38.8	37.5	34.4	37.6	35.2
Stocks	1,113	1,178	924	902	989	1,159	1,515	1,399	1,425	1,905	1,821	1,266
Imports	2	2	2	3	3	8	4	9	16	21	15	14
Production	2,046	1,776	2,134	2,381	2,785	2,765	2,420	2,595	2,425	2,092	2,105	1,840
Total Supply	3,161	2,956	3,060	3,286	3,777	3,932	3,939	4,003	3,866	4,018	3,941	3,120
Seed	80	87	101	113	110	97	100	98	93	84	85	100
Food	586	592	596	610	602	616	643	651	683	701	720	730
Feed & Resid.	193	158	86	60	135	195	369	405	270	408	270	220
Total Dom. Use.	859	837	783	783	847	908	1,112	1,154	1,046	1,193	1,075	1,050
Grain Exports	1,067	1,133	1,312	1,452	1,711	1,441	1,342	1,268	845	918	1,540	1,035
Product Exports	57	61	63	62	60	68	87	56	70	86	60	65
Total Exports	1,124	1,194	1,375	1,514	1,771	1,509	1,429	1,424	915	1,004	1,600	1,100
Total Usage	1,983	2,031	2,158	2,297	2,618	2,417	2,540	2,578	1,961	2,197	2,685	2,150
Ending Stocks	1,178	924	902	989	1,159	1,515	1,399	1,425	1,905	1,821	1,266	970
Free	522	348	355	375	295	196	221	215	29	117	338	245
Reserve	342	403	260	360	562	1,061	611	654	433	463	467	450
Loan	266	122	99	54	112	66	379	178	841	405	178	75
CCC	48	51	188	200	190	192	188	378	602	830	283	200
Stocks/Use (%)	59.4	45.5	41.8	43.1	44.3	62.7	55.1	55.3	97.2	82.6	46.8	45.1
US Wheat Prices (\$)	2.33	2.97	3.80	3.99	3.69	3.45	3.51	3.39	3.08	2.42	2.57	3.00
Target Price (\$)	2.90	3.40	3.40	3.63	3.81	4.05	4.30	4.38	4.38	4.38	4.38	4.23
Loan Rate (\$)	2.25	2.35	2.50	3.00	3.20	3.55	3.65	3.30	3.30	2.30	2.28	2.21
Cash/Loan Rate (%)	104	126	152	133	115	97	96	103	93	105	113	135

KSU AG ECON

July 25, 1988

WHEAT FUNDAMENTALS

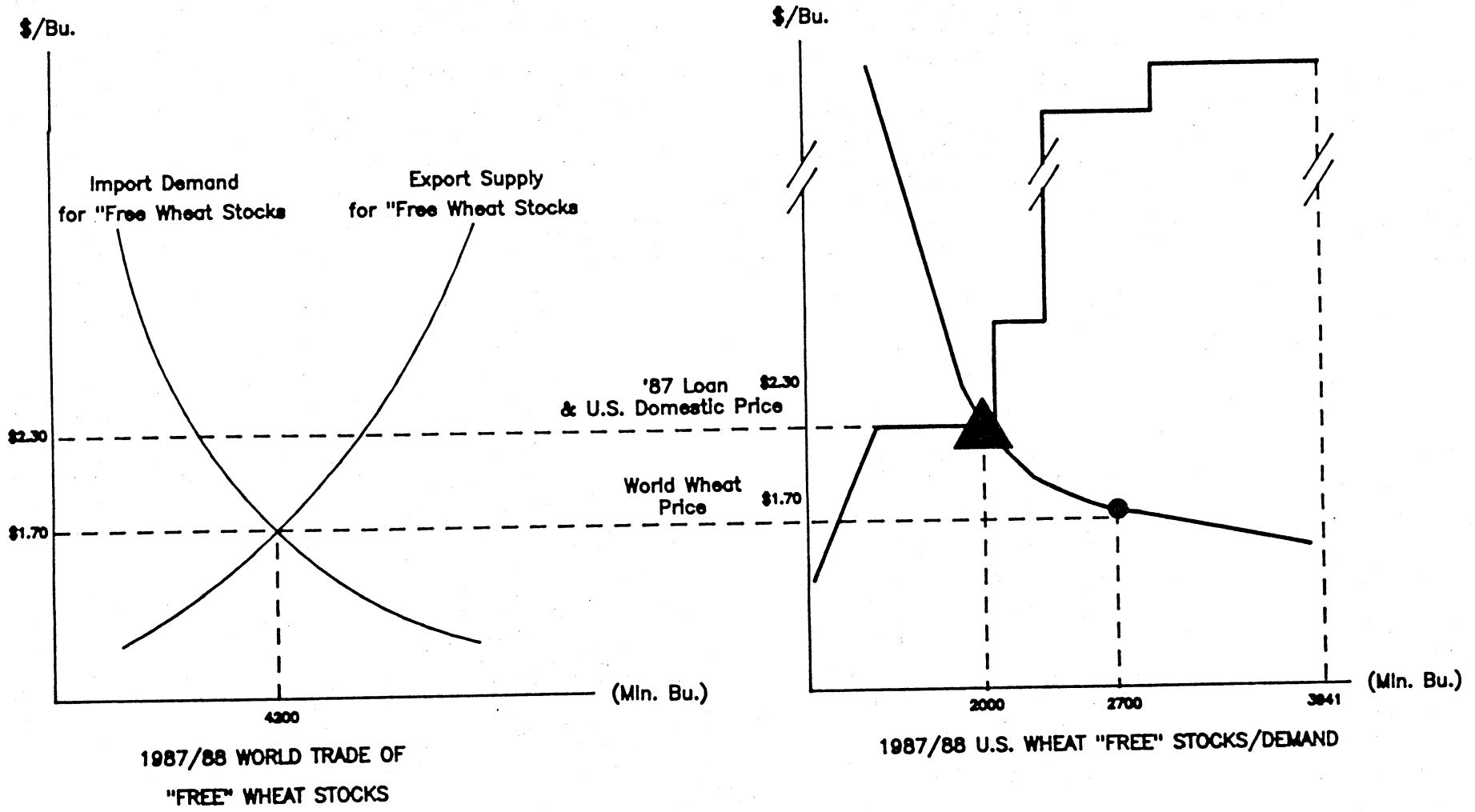
Crop Year	-----Acreage (mln. ac.)-----				Yield	---Supply (mln. ac.)---			-----Use (mln. bu.)-----					Price (\$/bu.)		
	Govt. %	Plant.	Harv.	Prod.		Begin. Stks.	Total	Feed	Domestic	Exports	Total Demand	End Stks.	Free ¹ Stks.	Season Price	Loan	
1950/51			71.2	61.6	16.5	1019	496	1526	108	689	345	1034	492	296	\$2.00	\$1.99
1951/52			78.5	61.9	16.0	988	492	1510	109	695	485	1180	330	187	2.11	2.18
1952/53			78.6	71.1	18.4	1306	330	1660	78	656	332	988	672	202	2.09	2.20
1953/54			78.9	67.8	17.3	1173	672	1851	88	644	213	857	994	219	2.04	2.21
1954/55			62.5	54.4	18.1	984	994	1981	53	605	267	872	1109	133	2.12	2.24
1955/56			58.2	47.3	19.8	937	1109	2056	51	604	322	926	1130	179	1.98	2.08
1956/57			60.7	49.8	20.2	1006	1130	2144	58	599	541	1140	1004	180	1.97	2.00
1957/58			49.8	43.8	21.8	956	1004	1970	42	589	419	1008	962	127	1.93	2.00
1958/59			56.0	53.0	27.5	1458	962	2428	49	610	450	1060	1368	221	1.75	1.83
1959/60			56.7	51.7	21.6	1118	1368	2493	49	607	502	1109	1384	189	1.76	1.81
1960/61			54.9	51.9	26.1	1355	1384	2747	30	591	654	1245	1502	259	1.74	1.78
1961/62			55.7	51.6	23.9	1233	1502	2741	44	604	716	1320	1421	324	1.83	1.79
1962/63	*	75.0	49.3	43.7	24.4	1092	1421	2518	35	599	649	1248	1270	188	2.04	2.00
1963/64	*	46.0	53.4	45.5	25.2	1147	1270	2421	28	581	846	1427	994	165	1.85	2.00
1964/65	*	74.0	55.7	49.8	25.8	1283	994	2279	55	635	723	1358	921	275	1.37	1.30
1965/66	*	82.0	57.4	49.6	26.5	1315	921	2237	146	725	852	1577	660	240	1.35	1.25
1966/67	*	82.0	54.1	49.6	26.3	1305	660	1967	100	683	771	1454	513	376	1.63	1.25
1967/68			84.0	67.3	58.4	1507	513	2021	36	626	765	1391	630	526	1.39	1.25
1968/69			85.0	61.9	54.8	1557	630	2188	156	740	544	1284	904	761	1.24	1.25
1969/70	*	88.0	53.5	47.1	30.6	1443	904	2350	188	764	603	1367	983	693	1.25	1.25
1970/71	*	88.0	48.7	43.6	31.0	1352	983	2336	193	772	741	1513	823	464	1.33	1.25
1971/72	*	95.0	53.8	47.7	33.9	1619	823	2443	262	849	610	1459	984	618	1.34	1.23
1972/73	*	95.0	54.9	47.3	32.7	1546	984	2531	200	799	1135	1934	597	384	1.76	1.25
1973/74	*	97.0	59.3	54.1	31.6	1711	597	2311	126	754	1217	1971	340	207	3.95	1.25
1974/75			71.0	65.4	27.3	1782	340	2125	35	672	1018	1690	435	423	4.09	1.37
1975/76			74.9	69.5	30.6	2127	435	2564	38	726	1173	1899	665	665	3.55	1.37
1976/77			80.4	70.9	30.3	2149	666	2818	74	754	949	1703	1113	1113	2.73	2.25
1977/78			80.4	70.9	30.3	2149	666	2818	74	754	949	1703	1113	1113	2.73	2.25
1977/78			80.4	70.9	30.3	2149	666	2818	74	754	949	1703	1113	1113	2.73	2.25
1977/78			75.4	66.7	30.7	2046	1113	3161	193	859	1124	1983	1178	788	2.33	2.25
1978/79	*	63.0	66.0	56.5	31.3	1776	1178	2956	158	837	1194	2031	924	470	2.97	2.35
1979/80	*	51.0	71.4	62.5	34.2	2134	924	3060	86	783	1375	2158	902	454	3.80	2.50
1980/81			80.8	71.1	33.5	2381	902	3286	60	783	1514	2297	989	429	3.99	3.00
1981/82			88.3	80.6	34.5	2785	989	3777	135	847	1771	2618	1159	407	3.69	3.20
1982/83	*	48.0	86.2	77.9	35.5	2765	1159	3932	195	908	1509	2417	1515	262	3.45	3.55
1983/84	*	77.8	76.4	61.4	39.4	2420	1515	3939	369	1112	1429	2540	1399	600	3.51	3.65
1984/85	*	60.0	79.2	66.9	38.8	2595	1399	4003	405	1154	1424	2578	1425	392	3.39	3.30
1985/86	*	73.0	75.6	64.7	37.5	2425	1425	3866	270	1046	915	1961	1905	870	3.08	3.30
1986/87	*	85.0	72.1	60.7	34.4	2092	1905	4018	408	1193	1004	2197	1821	528	2.42	2.30
1987/88 ^P	*	87.0	65.8	55.9	37.6	2105	1821	3941	270	1075	1600	2685	1266	516	2.57	2.28
1988/89 ^P	*	83.0	65.9	52.3	35.2	1840	1266	3120	220	1050	1100	2150	970	320	3.00	2.21

July 25, 1988

¹ Free Stocks = Total Stocks - CCC - Reserve Loans

^P KSU AG ECON PROJECTION

Figure 1



WHEAT EXPORT ENHANCEMENT PROGRAM
(Details for 1987/88 Marketing Year Shipments)

Wheat Class or Product
(1,000 MT and EEP Bonus -- \$/MT)

<u>Country</u>	<u>HRW</u>	<u>SRW</u>	<u>HRS</u>	<u>DURUM</u>	<u>WHITE</u>	<u>FLOUR*</u>	<u>SEMOLINA*</u>	<u>TOTAL</u>
Algeria	579 (\$38.78)	208 (\$30.84)	150 (\$42.76)	1010 (\$36.56)	---	---	---	1947 (\$37.09)
Bangladesh	57 (\$36.57)	60 (\$36.57)	---	---	33.5 (\$36.57)	---	---	151 (\$36.57)
Brazil	66 (\$24.27)	---	---	---	---	---	---	66 (\$24.27)
Bulgaria	100 (\$37.68)	---	50 (\$37.68)	---	---	---	---	150 (\$37.68)
Canary Island	7.3 (\$33.60)	---	---	---	---	---	---	7 (\$33.60)
China	3470 (\$40.22)	1280 (\$38.97)	30 (\$42.03)	---	30 (\$34.41)	---	---	4810 (\$39.86)
Columbia	146 (\$37.42)	---	---	---	---	---	---	146 (\$37.42)
Egypt	---	587 (\$30.81)	---	---	1366 (\$35.89)	558 (\$71.36)	11 (\$165.19)	2522 (\$43.12)
Finland	84.5 (\$36.47)	---	58 (\$30.86)	---	---	---	---	143 (\$34.07)
India	100 (\$24.72)	100 (\$24.72)	---	---	---	---	---	200 (\$24.72)
Iraq	927 (\$27.63)	---	---	---	---	94.4 (\$69.72)	---	1021 (\$31.53)
Jordan	165 (\$38.08)	35 (\$38.08)	---	---	---	---	---	200 (\$38.08)
Mexico	160 (\$35.62)	---	40 (\$35.62)	---	---	---	---	200 (\$35.62)
Morocco	690 (\$38.13)	770 (\$37.22)	150 (\$37.91)	---	50 (\$37.59)	---	---	1660 (\$37.67)
Phillippines	25 (\$11.92)	---	345 (\$24.75)	---	75 (\$29.06)	---	---	445 (\$24.76)
Poland	1270 (\$39.40)	26 (\$32.59)	80 (\$40.89)	99 (\$44.06)	---	---	---	1475 (\$39.67)
Sri Lanka	50 (\$39.88)	---	---	---	150 (\$30.76)	---	---	200 (\$33.04)
Tunisia	150 (\$44.78)	110 (\$37.53)	125 (\$32.79)	50 (\$28.00)	---	---	---	435 (\$37.57)
USSR	11405 (\$35.47)	---	1575 (\$29.68)	---	---	---	---	12980 (\$34.77)
West Africa	60 (\$45.75)	10 (\$35.90)	118.2 (\$35.47)	---	---	8.2 (\$88.07)	---	196 (\$40.91)
Yemen	---	---	---	---	200 (\$29.05)	70 (\$77.65)	---	270 (\$41.65)
Yugoslavia	79 (\$32.21)	---	88 (\$32.15)	---	---	---	---	167 (\$32.18)
Zaire	86 (\$33.40)	---	---	---	---	---	---	86 (\$33.40)
Zanzibal	---	---	---	---	---	8.2	---	8.2
					(\$78.87)		(\$78.87)	
TOTAL	19677 (\$36.40)	3186 (\$35.90)	2809 (\$31.38)	1159 (\$36.83)	1905 (\$34.52)	739 (\$72.00)	11 (\$165.19)	29485 (\$36.70)

* In grain equivalent.

Source: Various Issues -- U.S. Wheat Letter, U.S. Wheat Associates.

KSU Ag Econ

July 25, 1988

Figure 2

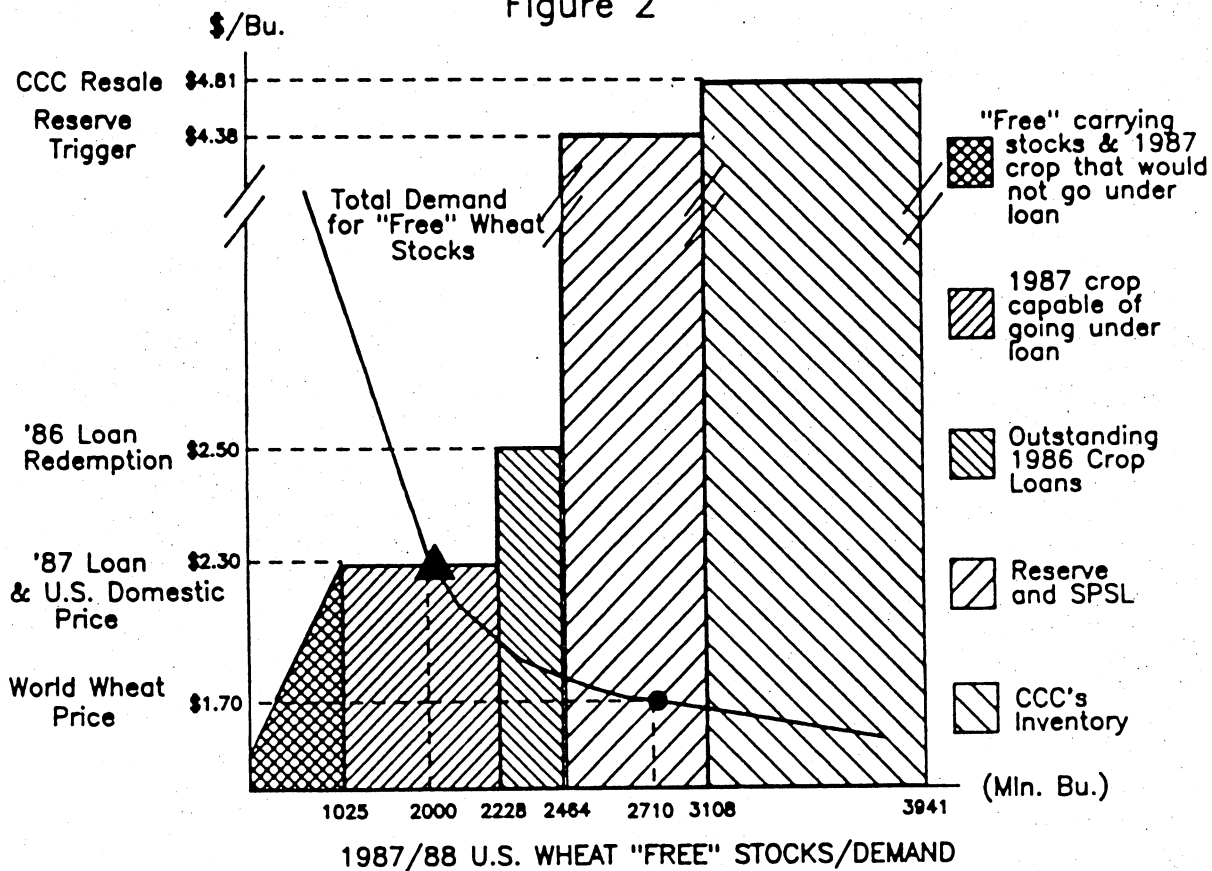


Figure 3

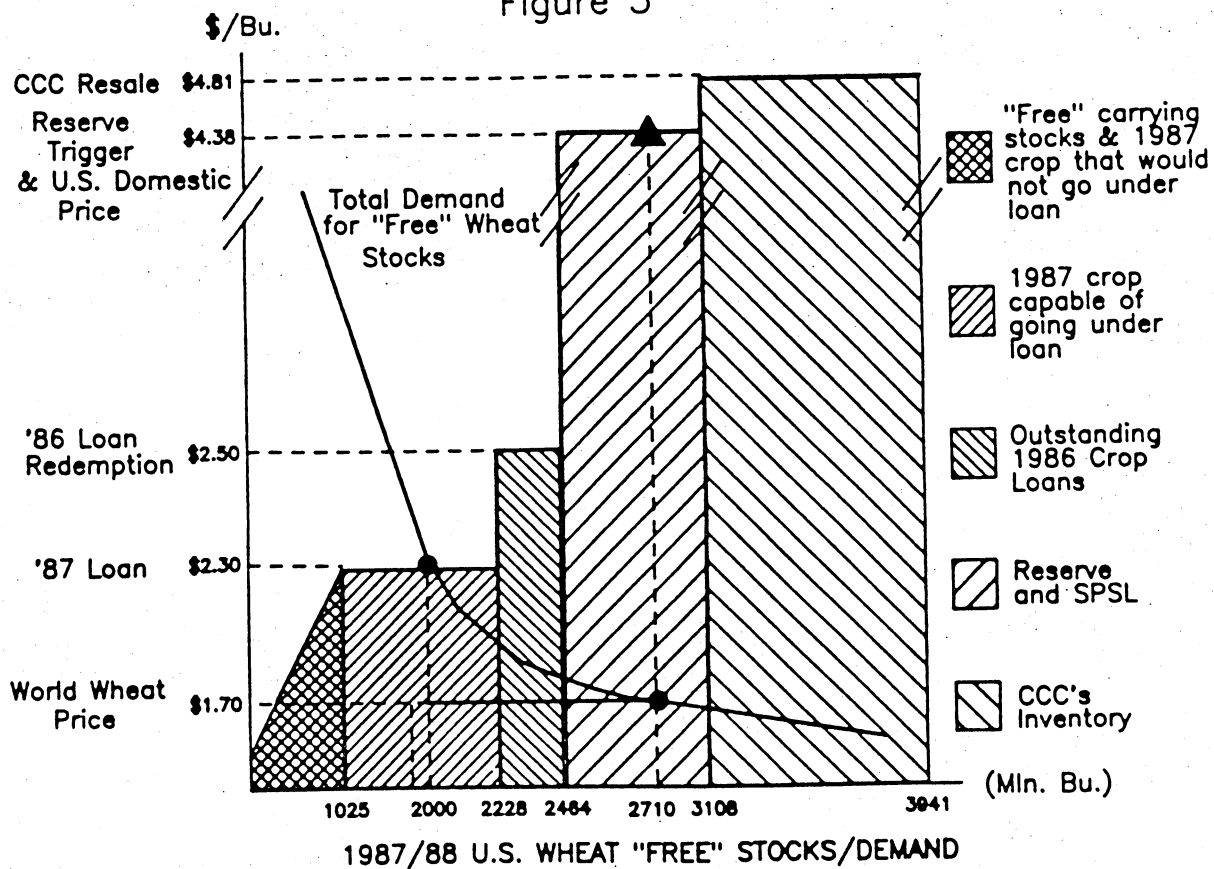
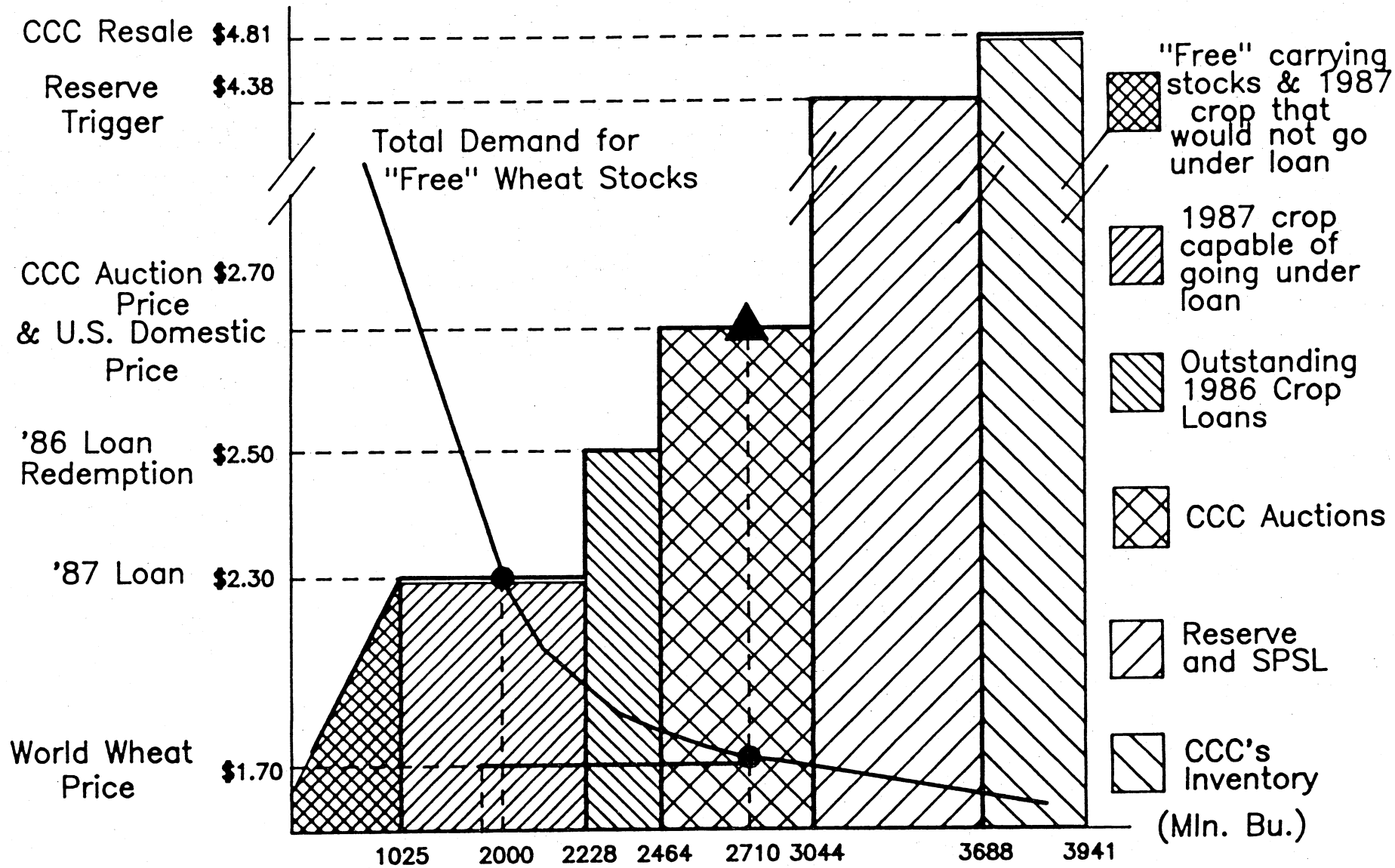


Figure 4

\$/Bu.

10



1987/88 U.S. WHEAT "FREE" STOCKS/DEMAND

WHEAT EXPORT INSPECTIONS
(million bushels)

<u>Country or region</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>	<u>1984-85</u>	<u>1985-86</u>	<u>1986-87</u>	<u>1987-88*</u>	<u>1988-89^P</u>
EEC	130	86	87	60	51	35	25	20
Italy	31	19	21	15	14	19	13	10
Netherlands	38	28	29	20	15	8	2	5
Portugal	24	19	29	20	20	5	4	3
OTHER WEST EUROPE	11	3	--	4	7	5	5	--
EAST EUROPE	21	6	9	3	3	41	71	25
USSR	231	121	149	231	6	0	462	165
JAPAN	128	124	126	121	119	122	121	120
TAIWAN	25	24	22	24	25	30	33	30
PRC	281	190	104	99	21	2	158	50
OTHER ASIA & OCN	319	415	345	291	249	236	252	245
Korea	65	69	75	73	70	65	79	60
India	55	143	50	2	0	0	4	35
Indonesia	29	32	35	22	10	16	8	10
Iraq	--	22	42	31	23	27	39	25
Philippines	32	35	27	26	25	31	22	25
AFRICA	227	199	235	260	211	291	305	260
Algeria	26	19	26	27	48	64	76	45
Egypt	85	67	50	62	57	94	98	70
Nigeria	44	47	58	59	34	29	0	10
Morocco	42	36	58	61	39	51	69	55
WEST. HEMISPHERE	302	242	257	269	155	161	108	120
Brazil	114	86	88	116	28	24	3	15
Chile	37	36	30	26	17	6	2	5
Columbia	20	20	21	23	18	10	12	15
Peru	37	27	26	19	6	10	7	10
Venezuela	31	31	31	29	22	33	16	20
UNIDENTIFIED	29	24	1	0	0	10	0	0
TOTAL	1708	1434	1334	1362	848	933	1540	1035

* Based on U.S. Export Sales Report (May 26, 1988)

^P KSU Ag Econ projection.

July 25, 1988

U.S. WHEAT PROGRAMS PROVISIONS

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u> ^P
Base Acres (mln. ac.)	90.7	90.9	94.0	94.0	91.6 ¹	87.7 ¹	84.7 ¹	81.7 ¹
Participation	48%	78%	60%	73%	85%	87%	83%	80%
Target Price (\$/Bu.)	4.10	4.30	4.38	4.38	4.38	4.38	4.23	4.10
Regular Loan (\$/Bu.)	3.55	3.65	3.30	3.30	2.30 ²	2.28	2.21 ⁴	2.06 ⁴
Possible Deficiency Payment (\$/Bu.)	.60	.65	1.08	1.08	1.98	2.10	2.02	2.04
Reserve Loan (\$/Bu.)	4.05	3.65	3.30	3.30	--	--	--	--
Reserve Trigger (\$/Bu.)	4.65	4.45	4.38	4.38	4.38	4.38	4.23	4.10
Acreage Reduction (% acreage base)	15%	15%	20%	20%	22.5%	27.5%	27.5%	0-10%
Paid Land Diversion (%)	NO	5%	10%	10%	optional 5-10% paid in PIK	optional 50/92 provision ³	optional 0/92 ⁵	optional 0/92 ⁵
PIK (%)	NO	20-30%	10-20%	NO	2.5%	NO	NO	NO
PIK Payment Rate (% proven yields)	NO	95%	85%	NO	NO	NO	NO	NO
Hay or Grazing Provisions	YES	YES	YES	YES	YES	YES	YES	YES
Advanced Deficiency or Diversion Payments	NO	YES	YES	YES	YES	YES	YES	YES
Reserve Provisions								
Storage Payment (/Bu.)	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
Delayed Entry	NO	YES	YES	YES	--	--	--	--
Cap	NO	NO	NO	NO	373	300	300	300
Special Producer Storage Loans	NO	NO	NO	YES	YES	NO	NO	NO
Regular Loan Extension	NO	NO	NO	NO	YES	NO	NO	NO

¹ Base excludes wheat acres signed up in the CRP.

² Budget reduction act lowered the effective loan from \$2.40 to \$2.30.

³ Limited 0/92 for wheat producers who were prevented from planting.

⁴ USDA has the discretionary authority to permit repayment of loans at as little as 90% of loan.

⁵ 0/92 includes a guarantee on the projected deficiency payment.

P KSU Projections.

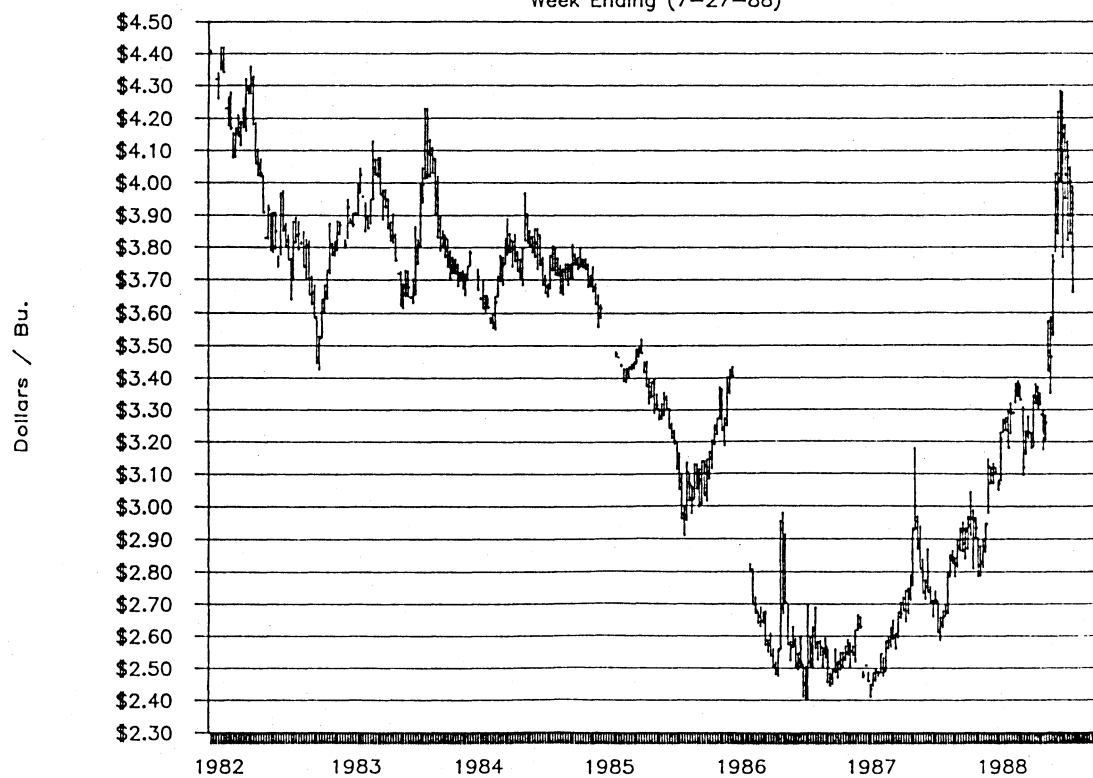
July 25, 1988

Wheat Conditional Seasonal

<u>Crop Year</u>	<u>Date</u>	<u>KCBT July Wheat Price</u> (\$/Bu)	<u>May-July Low</u> (\$/Bu)	<u>Date</u>	<u>Hedge Profit</u> (\$/Bu)
1970/71	9/15	1.53	1.42	5/21	.11
1974/74	9/30	4.79	3.03	6/13	1.76
1980/81	9/8	5.09	4.02	6/29	1.07
1983/84	8/25	4.15	3.52	5/15	.63
1988/89	6/23	3.77	-	-	-

KCBT DECEMBER WHEAT FUTURES

Week Ending (7-27-88)



CORN COMMENTS

1988 CORN CROP IS PROJECTED TO BE 4275 MLN. BU., DOWN 40 PERCENT FROM LAST YEAR.

- UNFAVORABLE AUGUST WEATHER COULD REDUCE YIELDS BY 10 BU./AC. BELOW CURRENT PROJECTIONS.
- ABANDONMENT OF PLANTED ACRES IS PROJECTED AT 84 PERCENT, BUT IF CROP CONDITIONS CONTINUE TO DETERIORATE ABANDONMENT COULD INCREASE.

DON'T LOOK FOR MUCH "PRICE RATIONING" FROM LOWER EXPORTS OR INDUSTRIAL USE. MOST DEMAND ADJUSTMENTS WILL COME IN LIVESTOCK FEEDING.

ADMINISTRATION OF "DROUGHT RELIEF" LEGISLATION COULD BE CRITICAL TO PRICE OUTLOOK.

- CASH SUBSIDIES COULD STIMULATE DEMAND FOR "FREE STOCKS, AND KEEP PRICES ABOVE F.O.R. RELEASE PRICE.

SALE OF CCC INVENTORY AT 75% OF LOAN WOULD REDUCE DEMAND FOR "FREE" STOCKS, AND PERMIT PRICES TO FALL BELOW F.O.R. RELEASE PRICE.

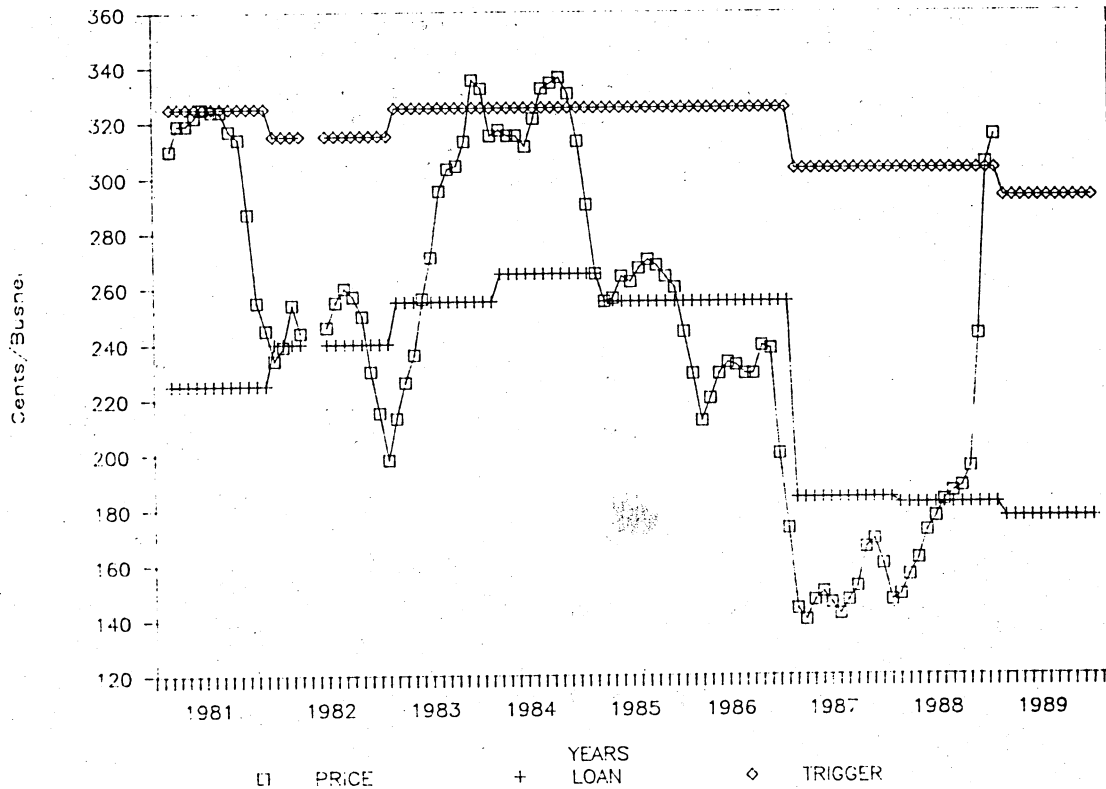
IF 1988/89 ENDING STOCKS FALL BELOW 2 BILLION BUSHELS, 1989 SET ASIDE CANNOT EXCEED 12.5%.

"BEST" PRICING OPPORTUNITY FOR 1989 CROPS IS THE NEXT FOUR WEEKS USING "OLD CROP/NEW CROP" HEDGE.

WILD CARDS:

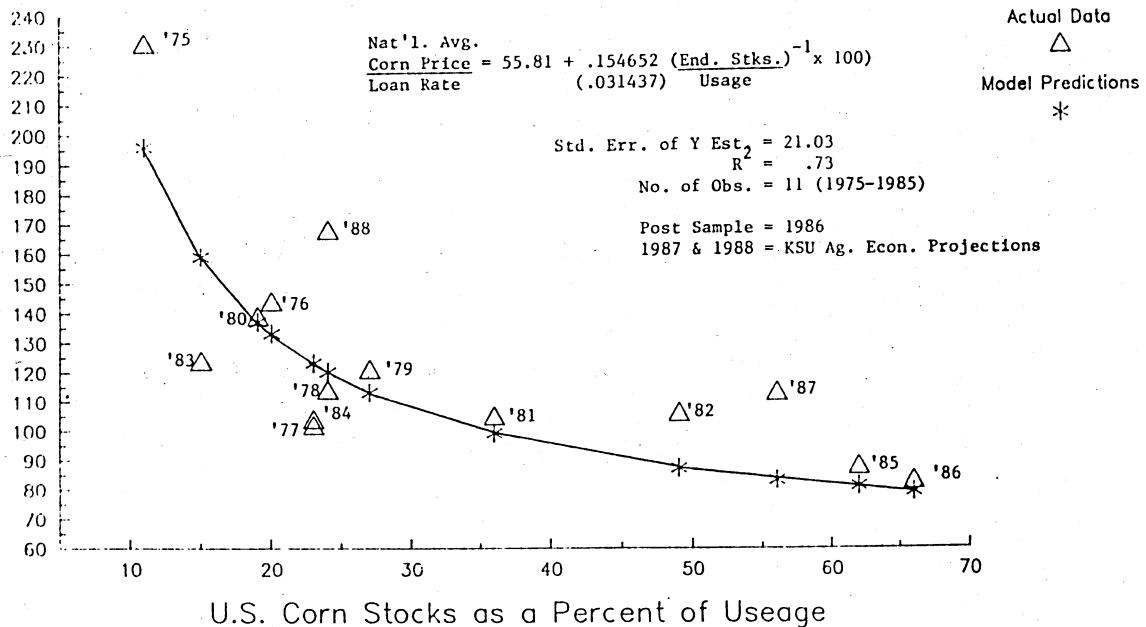
- 1) AUGUST WEATHER ... MARKET SHOULD CHALLENGE OLD HIGHS IN NEXT FOUR WEEKS, BUT HIGHS HAVE OCCURED LATER IN "SHORT" CROP YEARS.**
- 2) USSR IMPORT REQUIREMENTS.**
- 3) EXTENT AND SPEED OF REDUCTION IN LIVESTOCK NUMBERS.**

CORN: PRICE, LOAN, TRIGGER



U.S. CORN PRICE FORECASTING MODEL

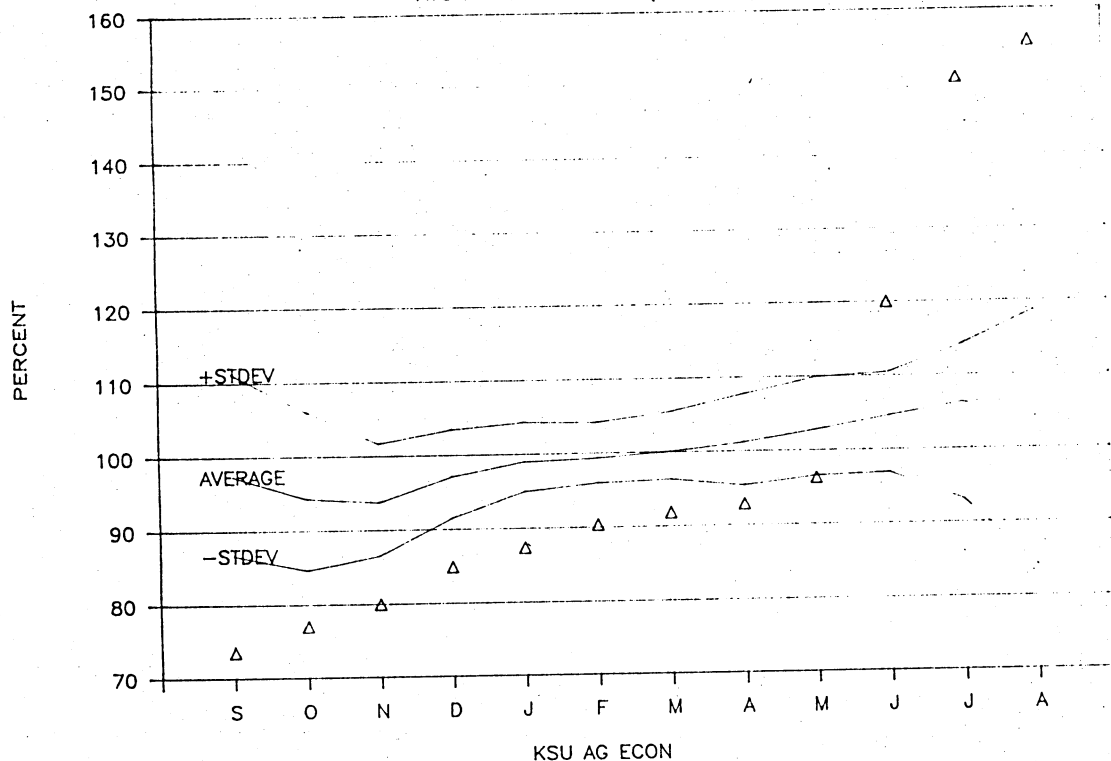
U.S. Corn Price as a Percent of Loan Rate



1975 - 1986 : USDA Estimates
 1987 & 1988 : KSU Ag Econ Projection
 July 25, 1988

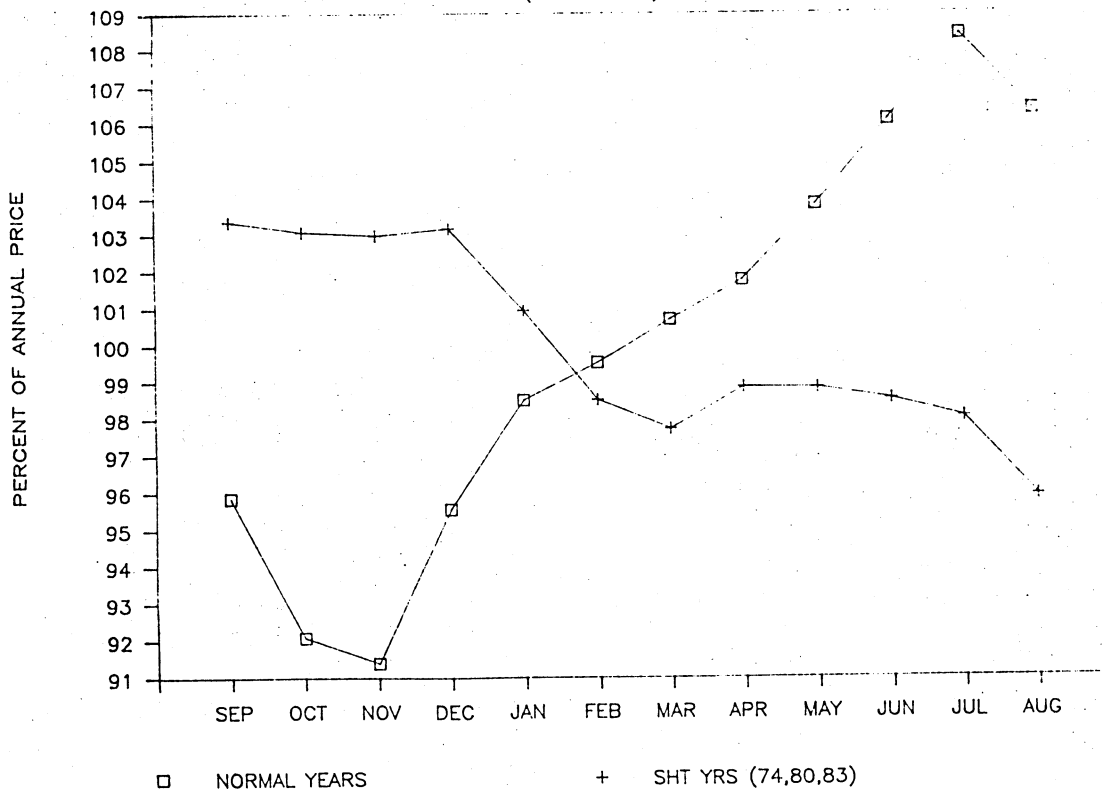
U.S. CORN SEASONAL INDEX

AVG PRICES RECEIVED (1973-87)



CORN PRICES IN NORMAL AND SHORT YEARS

(1973-1987)



US CORN SUPPLY-DEMAND BALANCE TABLE

SEP/AUG YEAR	KSU - KSU -											
	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89
-----Million Bushels-----												
Plant. Acres	84.3	81.7	81.4	84.0	84.1	81.9	60.2	80.5	83.4	76.7	65.7	67.5
Harv. Acres	71.6	71.9	72.4	73.0	74.5	72.7	51.5	71.9	75.2	69.2	59.2	57.0
Yield	90.8	101.0	109.5	91.0	108.9	113.2	81.0	106.7	118.0	119.3	119.4	75.0
Stocks	1,136	1,436	1,710	2,034	1,392	2,537	3,523	1,006	1,648	4,040	4,882	4,295
Production	6,505	7,268	7,928	6,639	8,119	8,235	4,175	7,674	8,877	8,250	7,064	4,275
Imports	3	1	1	1	1	1	3	4	11	2	5	5
Total Supply	7,643	8,705	9,639	8,675	9,512	10,772	7,701	8,684	10,536	12,291	11,951	8,575
FIS/1	581	608	640	718	797	895	975	1,091	1,160	1,192	1,236	1,250
Feed	3,717	4,264	4,549	4,157	4,169	4,521	3,818	4,079	4,095	4,714	4,620	3,975
Exports	1,909	2,124	2,415	2,408	2,010	1,834	1,902	1,865	1,241	1,504	1,800	1,700
Total Usage	6,207	6,996	7,604	7,283	6,975	7,249	6,694	7,036	6,496	7,410	7,656	6,925
Ending Stocks	1,436	1,710	2,034	1,392	2,537	3,523	1,006	1,648	4,040	4,882	4,295	1,650
Free Stocks	740	867	988	1,024	615	377	314	378	192	(161)	1,320	875
Reserve	212	585	670	0	1,276	1,890	447	383	564	1,498	1,075	400
CCC	4	100	260	242	280	1,143	201	225	546	1,443	900	275
Loan	480	158	116	126	366	113	44	662	2,736	2,102	1,000	100
Stocks/Use (%)	23.1	24.4	26.7	19.1	36.4	48.6	15.0	23.4	62.2	65.9	56.1	23.8
US Corn Prices #2	2.02	2.25	2.52	3.11	2.50	2.68	3.25	2.62	2.35	1.50	2.03	2.95
Target Price	2.00	2.10	2.20	2.35	2.40	2.70	2.86	3.03	3.03	3.03	3.03	2.93
Loan Rate	2.00	2.00	2.10	2.25	2.40	2.55	2.65	2.55	2.55	1.84	1.82	1.76
Cash/Loan (%)	101	113	120	138	104	105	123	103	92	82	112	168

/1 FIS = Food, Industry and Seed

KSU AG ECON

July 25, 1988

CORN FUNDAMENTALS

Crop Year	----Acreage (mln. ac.)-----				---Supply (mln. ac.)---				-----Use (mln. bu.)-----					Price (\$/bu.)		
	Govt. Prog.	% Part.	Plant.	Harv.	Yield	Prod.	Begin. Stks.	Total	Feed	Total Domestic	Exports	Total Demand	End Stks.	Free ¹ Stks.	Season Price	Loan
1950			82.9	72.4	38.2	2764	844	3609	2482	2753	117	2870	739	336	1.52	1.47
1951			83.3	71.2	36.9	2629	739	3369	2555	2801	81	2882	487	196	1.66	1.57
1952			82.2	71.4	41.8	2981	487	3469	2312	2555	145	2700	769	533	1.52	1.60
1953			81.6	70.7	40.7	2882	769	3652	2387	2628	104	2732	920	567	1.48	1.60
1954			82.2	68.7	39.4	2708	920	3629	2242	2491	103	2594	1035	354	1.43	1.62
1955			80.9	68.5	42.0	2873	1035	3909	2366	2624	120	2744	1165	347	1.35	1.58
1956			77.8	64.9	47.4	3075	1165	4241	2378	2638	184	2822	1419	487	1.29	1.50
1957			73.2	63.1	48.3	3045	1419	4466	2534	2797	200	2997	1469	368	1.11	1.40
1958			73.4	63.5	52.8	3356	1469	4826	2783	3072	230	3302	1524	371	1.12	1.36
1959			82.7	72.1	53.1	3825	1524	5350	3043	3333	230	3563	1787	501	1.05	1.12
1960			81.4	71.4	54.7	3907	1787	5695	3092	3387	292	3679	2016	689	1.00	1.06
1961	*		65.9	57.6	62.4	3598	2016	5616	3213	3528	435	3963	1653	765	1.10	1.20
1962	*	95.0	65.0	55.7	64.7	3606	1653	5260	3156	3479	416	3895	1365	555	1.12	1.20
1963	*	97.0	68.8	59.2	67.9	4019	1365	5385	3009	3348	500	3848	1537	709	1.11	1.07
1964	*		65.8	55.4	62.9	3484	1537	5022	2956	3305	570	3875	1147	607	1.17	1.10
1965	*		65.2	55.4	74.1	4103	1147	5251	3362	3722	687	4409	842	313	1.16	1.05
1966	*	57.0	66.3	57.0	73.1	4167	842	5010	3333	3697	487	4184	826	511	1.24	1.00
1967	*	55.0	71.2	60.7	80.1	4860	826	5687	3524	3886	633	4519	1168	690	1.03	1.05
1968	*	61.0	65.1	56.0	79.5	4450	1168	5619	3607	3966	535	4501	1118	473	1.08	1.05
1969	*	65.0	64.3	54.6	85.9	4687	1118	5806	3825	4190	611	4801	1005	457	1.16	1.05
1970	*	64.0	66.9	57.4	72.4	4152	1005	5161	3593	3978	517	4495	666	358	1.33	1.05
1971	*	79.0	74.2	64.1	88.1	5646	666	6314	3982	4391	796	5187	1127	452	1.08	1.05
1972	*	94.0	67.1	57.5	97.0	5580	1127	6708	4292	4742	1258	6000	708	581	1.57	1.05
1973	*	86.0	72.3	62.1	91.3	5671	708	6380	4181	4653	1243	5896	484	477	2.55	1.05
1974			77.9	65.4	71.9	4701	484	5187	3180	3677	1149	4826	361	361	3.02	1.10
1975-1987 (Sept. 1-Aug. 31 Crop Year)																
1975			78.7	67.6	86.4	5841	558	6401	3569	4090	1678	5767	633	633	2.54	1.10
1976			84.6	71.5	88.0	6289	633	6925	3590	4133	1657	5789	1136	1135	2.15	1.50
1977			84.3	71.6	90.8	6505	1136	7643	3717	4298	1909	6207	1436	1220	2.02	2.00
1978	*		81.7	71.9	101.0	7268	1436	8705	4264	4872	2124	6996	1710	1024	2.25	2.00
1979	*		81.4	72.4	109.5	7928	1710	9639	4549	5189	2415	7604	2034	1104	2.52	2.10
1980			84.0	73.0	91.0	6639	2034	8675	4157	4875	2408	7283	1392	1150	3.11	2.25
1981			84.1	74.5	108.9	8119	1392	9512	4169	4966	2010	6975	2537	980	2.50	2.40
1982	*	29.0	81.9	72.7	113.2	8235	2537	10772	4521	5416	1834	7249	3523	490	2.68	2.55
1983	*	71.0	60.2	51.5	81.0	4175	3523	7701	3818	4793	1902	6694	1006	358	3.25	2.65
1984	*	54.0	80.5	71.9	106.7	7674	1006	8684	4079	5170	1865	7036	1648	1039	2.62	2.55
1985	*	69.0	83.4	75.2	118.0	8877	1648	10536	4095	5255	1241	6496	4040	2930	2.35	2.55
1986	*	86.0	76.7	69.2	119.3	8250	4040	12291	4714	5906	1504	7410	4882	1941	1.50	1.84
1987P	*	90.0	65.7	59.2	119.4	7064	4882	11951	4620	5856	1800	7656	4295	2320	2.03	1.82
1988	*	87.0	67.5	57.0	75.0	4275	4295	8575	3975	5225	1700	6925	1650	975	2.95	1.76

July 25, 1988

¹Free Stocks = Total Stocks - CCC - Reserve Loans

P KSU AG ECON PROJECTIONS

CORN CROP REPORTS AND ACREAGE ABANDONMENT IN

"SHORT" CROP YEARS

(1950-1988)

<u>Crop Year*</u>	<u>Deviation From Trends Yields (%)</u>	<u>Production Estimates</u>		<u>Final August (%)</u>	<u>---Acreage---</u>		<u>Harvested Planted (%)</u>
		<u>August</u> --(Mln. Bu)--	<u>Final</u>		<u>Planted</u>	<u>Harvested</u> ---(Mln. Ac.)---	
1947/48	-24.3	2660	2440	90	85.0	82.9	98
1954/55	- 6.6	2824	3058	108	82.2	80.2	98
1955/56	- 6.3	3478	3220	93	81.1	79.5	98
1957/58	- 6.6	3066	3400	110	73.9	72.6	98
1964/65 [#]	- 9.8	3885	3484	90	65.8	55.4	84
1970/71	-12.7	4693	4152	88	66.9	57.4	86
1974/75	-18.7	4966	4702	95	77.9	65.4	84
1980/81	- 9.1	6650	6639	100	84.0	73.0	87
1983/84	-28.9	5236	4175	80	60.2	51.5	86
1988/89 ^P	(-28 to-38)	(4275)			67.5	(57.0)	(84)

* Years in which corn yields fell more than 5 percent below adjusted trend yields. Adjusted trend yields for 1988 are 120 bushels/acre.

Prior to 1961, acreage and production figures are for all corn. From 1961 on, figures are corn for grain only.

^P KSU Ag. Econ. Projection

Corn Conditional Seasonal
(1930-1988)

<u>Crop Year*</u>	<u>--December Futures--</u>		<u>Date</u>	<u>June-Nov High</u>	<u>Ending Stocks</u>
	<u>April High</u>	<u>June-Nov High</u>		<u>April High</u>	<u>Utilization</u>
	<u>-----(\$/Bu)-----</u>			<u>-----(%)-----</u>	
1930/31	85	99	8/7	116	8
1933/34	42	77	7/17	183	14
1934/35	60 ¹	91	11/30	152	4
1936/37	54 ²	107	11/18	198	4
1947/48	155 ³	261	11/29	168	5
1954/55	147	162	7/27	110	40
1955/56	139	141	9/26	101	42
1957/58	131	132	7/19	101	49
1964/65	120	124	9/11	103	30
1970/71	124	159	9/15	128	15
1974/75	271	400	10/4	148	8
1980/81	302	395	11/28	131	19
1983/84	310	376	8/16	121	15
1988/89	228	(370)	(7/5)	162	(33)

* Years in which corn yields fell more than 5 percent below adjusted trend yields. Adjusted trend yields for 1988 are 120 bushels/acre.

¹December 1934 contract did not begin trading until June 5, 1934.

²December 1936 contract did not begin trading until May 14, 1936.

³December 1947 contract did not begin trading until June 2, 1947.

U.S. CORN PROGRAMS PROVISIONS

	<u>1982/83</u>	<u>1983/84</u>	<u>1984/85</u>	<u>1985/86</u>	<u>1986/87</u>	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u> ^P
Base Acres (mln. ac.)	81.2	82.6	80.8	84.2	81.7 ¹	81.5 ¹	83.4 ¹	82.0 ¹
Participation	29%	71%	54%	69%	86%	90%	87%	70%
Target Price (\$/Bu.)	2.70	2.86	3.03	3.03	3.03	3.03	2.93	2.84
Regular Loan (\$/Bu.)	2.55	2.65	2.55	2.55	1.84 ²	1.82	1.77	1.65 ³
Possible Deficiency Payment (\$/Bu.)	.15	.21	.48	.488	1.11	1.21	1.16	1.19
Reserve Loan (\$/Bu.)	2.90	2.65	2.55	2.55	--	--	--	--
Reserve Trigger (\$/Bu.)	3.25	3.25	3.25	3.25	3.03	3.03	2.93	2.84
Acreage Reduction (% acreage base)	10%	10%	10%	10%	17.5%	20%	20%	10%
Paid Land Diversion (%)	NO	10%	NO	NO	2.5%	optional 15% and 50/92	optional 10% and 0/92	optional 0/92
PIK (%)	NO	10-30%	NO	NO	NO	NO	NO	NO
PIK Payment Rate (% proven yields)	NO	80%	NO	NO	NO	NO	NO	NO
Advanced Deficiency or Diversion Payments	NO	YES	YES	YES	YES	YES	YES	YES
Reserve Provisions								
Storage Payment (/Bu.)	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
Delayed Entry	NO	YES	YES	YES	--	--	--	--
Cap	NO	NO	NO	NO	465	450	450	450
Special Producer Storage Loans	NO	NO	NO	YES	YES	YES	NO	NO
Regular Loan Extension	NO	NO	NO	NO	YES	YES	YES	NO

¹ Base excludes corn acres signed up in the CRP.

² Budget reduction act lowered the effective loan from \$1.92 to \$1.84.

³ USDA has the discretionary authority to permit repayment of loans at as little as 90% of loan.

⁴ Under '85 FSA if projected 88/89 is below 2 billion bushels, set aside can be from 0 - 12.5%.

P KSU Projections.

July 25, 1988

Corn Conditioned Seasonal

Crop Year	Date	June-Sep High Futures Prices		July 1 Futures Prices		Sep-Nov Low of Dec Futures		Profit	
		July (\$/Bu)	Dec (\$/Bu)	July (\$/Bu)	Dec (\$/Bu)	Futures (\$/Bu)	Date (\$/Bu)	Straight Hedge (\$/Bu)	July/Dec Hedge (\$/Bu)
1970/71#	9/15	1.68	1.52 (10/26)	1.52	1.46	1.12	10/1	.40	.50
1974/75	9/30	3.99*	3.45	2.71	2.33	2.57	11/19	.88	1.04
1980/81#	9/8	3.79	3.54 (9/22)	3.24	3.46	2.61	11/30	.93	1.40
1983/84	8/25	3.88	3.25	3.51	3.11	2.64	11/30	.61	.84
1988/89	6/23	3.43	2.72	-	-	-	-	-	-

#December futures were not trading when July futures reached their summer highs, consequently this analysis assumes that December futures were sold on the first day that they traded (date in parenthesis).

*July contract reached its high of \$4.11 on 10/7/74.

WEEKLY DECEMBER CBT CORN FUTURES

HIGH,LOW,CLOSE(LAST WEEK 7-27-88)



SORGHUM COMMENTS

SORGHUM CROP IN FAR BETTER CONDITION THAN CORN.

HOWEVER, REDUCED YIELDS AND SMALLER PLANTED ACRES WILL RESULT IN A 558 MILLION BUSHEL CROP, DOWN 25 PERCENT FROM LAST YEAR AND LESS THAN HALF THE RECORD 1985 CROP.

1988 SORGHUM PLANTINGS WAS THE SMALLEST IN OVER 50 YEARS. APPROXIMATELY 11 PERCENT OF THE SORGHUM BASE HAS SIGNED UP FOR THE CRP AND OTHER BASE MAY HAVE BEEN SWITCHED TO CORN.

SORGHUM FEEDING COULD INCREASE DUE TO REDUCED CORN AVAILABILITY AND RELATIVELY HIGH CORN PRICES. WHEN PROPERLY PROCESSED SORGHUM HAS 95% OF THE FEED EFFICIENCY OF CORN.

US SORGHUM SUPPLY-DEMAND BALANCE TABLE

SEP/AUG YEAR	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	KSU - 87/88	KSU - 88/89
	-----Million Bushels-----											
Plant. Acres	16.6	16.2	15.3	15.6	15.9	16.0	11.9	17.2	18.3	15.3	11.8	10.4
Harv. Acres	13.8	13.4	12.9	12.5	13.7	14.1	10.0	15.3	16.7	13.9	10.6	9.0
Yield	56.6	54.6	62.6	46.3	64.0	59.1	48.7	56.7	66.8	67.7	69.9	62.0
Stocks	117	216	208	178	130	319	439	287	300	551	743	725
Production	781	731	807	579	876	835	488	866	1120	938	741	558
TOTAL SUPPLY	898	948	1015	757	1006	1154	927	1154	1420	1489	1484	1283
FIS/1	11	12	12	11	11	11	10	18	28	15	14	20
Feed	448	538	495	322	417	495	385	539	664	533	520	550
Exports	223	190	330	293	260	210	245	297	178	198	225	210
TOTAL USAGE	682	740	837	627	688	715	639	854	869	746	759	780
Ending Stocks	216	208	178	130	319	439	287	300	551	743	725	503
Free Stocks	80	89	102	73	28	(50)	0	27	(1)	(38)	95	118
Reserve	32	51	18	0	229	313	179	129	52	93	70	60
CCC	5	44	46	41	42	172	103	112	207	409	460	300
Loan	100	24	12	16	20	5	6	31	293	279	100	25
Stocks/Use (%)	31.7	28.1	21.2	20.7	46.7	61.4	44.9	35.1	63.9	99.6	95.5	64.5
US Sorghum												
Prices (\$/Bu.)	1.82	2.01	2.35	2.94	2.38	2.52	2.84	2.39	1.93	1.37	1.79	2.63
Target Price	2.28	2.28	2.34	2.50	2.55	2.60	2.72	2.88	2.88	2.88	2.88	2.78
Loan Rate	1.90	1.90	2.00	2.14	2.28	2.42	2.52	2.42	2.42	1.74	1.72	1.69
Cash/Loan Rate (%)	96	106	118	137	104	104	113	99	80	79	104	156
Sorghum/Corn Cash	90	89	93	95	95	94	87	91	82	91	88	89

/1 FIS = Food, Industry and Seed.

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SORGHUM FUNDAMENTALS

-----Acreage (mln. ac.)-----		-----Supply (mln. bu.)-----						-----Use (mln. bu.)-----					Price (\$/bu.)		
Govt.	%	Plant	Harv.	Yield	Begin			Total			Total	End	Free1	Season	
Prog	Part				Stocks	Prod.	Total	Feed	Domestic	Exports	Use	Stocks	Stocks	Loan	Price
1950/51		16.1	10.3	22.6	60	233	293	142	180	75	255	38	21	\$1.05	\$1.05
1951/52		15.0	8.5	19.1	38	163	201	115	129	62	191	10	9	1.22	1.32
1952/53		12.3	5.3	17.0	10	91	101	77	83	10	93	8	8	1.33	1.58
1953/54		14.6	6.3	18.4	8	115	123	79	86	15	101	22	--	1.36	1.32
1954/55		20.1	11.7	20.1	22	236	258	124	135	48	183	75	7	1.27	1.26
1955/56		23.9	12.9	18.8	75	242	317	159	170	66	236	81	6	1.00	.97
1956/57		21.4	9.2	22.2	81	205	286	172	185	22	207	79	4	1.10	1.15
1957/58		26.9	19.7	28.8	79	568	647	269	281	57	338	309	14	1.04	.97
1958/59		20.7	16.5	35.2	309	581	890	269	280	100	380	510	29	1.02	1.00
1959/60		19.5	15.4	36.1	510	555	1065	371	385	99	484	581	32	.85	.86
1960/61		19.6	15.6	39.7	581	620	1201	416	429	70	499	702	36	.85	.83
1961/62	*	14.3	11.0	43.7	702	480	1182	411	422	99	521	661	33	1.08	1.01
1962/63	*	95	15.1	11.6	661	510	1171	391	403	113	516	655	28	1.08	1.02
1963/64	*	95	17.5	13.3	655	585	1240	472	485	106	591	649	34	1.12	.97
1964/65	*	16.8	11.7	41.7	649	490	1139	412	425	148	573	566	27	.99	1.05
1965/66	*	17.1	13.0	51.6	566	672	1238	568	581	266	847	391	62	.92	.99
1966/67	*	69	16.4	12.8	391	715	1106	601	614	248	862	244	51	.85	1.02
1967/68	*	68	18.9	15.0	244	755	999	531	544	166	710	289	97	.90	.99
1968/69	*	69	17.8	13.9	289	731	1020	614	627	106	733	287	88	.90	.95
1969/70	*	72	17.2	13.4	287	730	1017	638	647	126	773	244	71	.90	1.07
1970/71	*	72	17.0	13.6	244	683	927	680	692	144	836	91	26	.90	1.14
1971/72	*	89	20.5	16.1	91	868	959	681	694	123	817	142	97	.97	1.04
1972/73	*	92	17.0	13.2	142	801	943	648	658	212	870	73	63	1.00	1.37
1973/74	*	92	19.0	15.7	73	923	996	690	701	234	935	61	60	1.00	2.14
1974/75		17.6	13.8	45.1	61	623	684	425	437	212	649	35	35	1.05	2.77
1975-1987 (Sept. 1-Aug. 31 Crop Year)															
1975/76		18.1	15.4	49.0	65	754	820	494	505	232	737	82	82	1.05	2.36
1976/77		18.1	14.5	49.1	82	711	793	411	422	254	676	117	117	1.43	2.03
1977/78		16.6	13.8	56.6	117	781	898	448	459	223	682	216	179	1.90	1.82
1978/79	*	16.2	13.4	54.5	216	731	948	538	550	190	740	208	113	1.90	2.01
1979/80	*	15.3	12.9	62.6	208	807	1015	495	508	330	837	178	114	2.00	2.35
1980/81		15.6	12.5	46.3	178	579	757	323	334	293	627	130	88	2.14	2.94
1981/82		15.9	13.7	64.0	130	876	1006	417	428	260	688	319	48	2.28	2.38
1982/83	*	47.0	16.0	14.1	319	835	1154	495	505	210	715	439	-46	2.42	2.52
1983/84	*	72.0	11.9	10.0	439	488	927	385	395	245	639	287	5	2.52	2.84
1984/85	*	42.0	17.2	15.3	287	866	1154	539	557	297	854	300	59	2.42	2.39
1985/86	*	55.0	18.3	16.7	300	1120	1420	664	692	178	869	551	292	2.42	1.93
1986/87	*	72.6	15.3	13.9	551	938	1489	533	548	198	746	743	241	1.74	1.37
1987/88P	*	83.0	11.8	10.6	743	741	1484	520	534	225	759	725	195	1.72	1.79
1988/89P	*	81.3	10.4	9.0	725	558	1283	550	570	210	780	503	143	1.69	2.63

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1Free Stocks = Total Stocks - CCC - Reserve Loans

P KSU Projection

HAY COMMENTS

HAY PRODUCTION IS DIFFICULT TO ESTIMATE DUE TO MULTIPLE CUTTINGS AND RELATIVELY LIMITED PRODUCTION INFORMATION.

TOTAL HARVESTED ACRES ARE PROJECTED TO BE UP ABOUT 5% DUE TO HAYING OF SET-ASIDE, CRP, AND HIGHWAY RIGHT-OF-WAYS.

IF WEATHER REPORTS FOR UPPER MIDWEST ARE CORRECT, ALFALFA PRODUCTION COULD FALL BY A THIRD AND TOTAL HAY PRODUCTION COULD DROP TO IT'S LOWEST LEVEL SINCE 1956.

HIGH TRANSPORT COSTS, POORLY DEVELOPED MARKETS, AND LIMITED ABILITY TO SUBSTITUTE COULD PUSH AVERAGE HAY PRICES TO A RECORD \$80 - \$90/TON.

US HAY SUPPLY-DEMAND BALANCE TABLE

MAY/APR YEAR	KSU -											
	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89
-----Million Tons-----												
Harvested Acres	61.0	62.1	61.3	58.9	59.6	59.8	59.7	61.4	60.4	62.4	60.8	63.4
Yield (Tons/Acre)	2.17	2.32	2.40	2.22	2.39	2.50	2.36	2.45	2.46	2.49	2.46	1.73
Alfalfa Production	80.8	87.3	88.1	80.0	83.7	88.4	82.2	90.1	85.3	91.6	86.0	59.2
Other Production	51.4	56.5	59.2	50.8	58.8	60.9	58.6	60.5	63.7	63.9	63.1	50.5
Total Production	132.2	143.8	147.3	130.7	142.5	149.2	140.8	150.6	148.6	155.5	149.1	109.7
Stocks	19.5	24.2	30.1	33.2	25.4	25.0	28.1	20.1	26.9	26.7	32.4	27.3
TOTAL SUPPLY	151.7	168.0	177.4	163.9	167.9	174.2	168.9	170.7	175.5	182.2	181.5	137.0
DISAPPEARANCE	127.5	137.9	144.2	138.5	142.9	146.1	148.8	143.8	148.8	149.8	154.2	127.0
May 1 Stocks	24.2	30.1	33.2	25.4	25.0	28.1	20.1	26.9	26.7	32.4	27.3	10.0
Stocks/Use (%)	19	22	23	18	17	19	14	19	18	22	18	8
US Hay Price (\$/Ton)	53.7	49.8	59.4	71.0	67.3	69.3	75.8	72.7	67.6	60.1	65.4	85.0
Hay Price/Corn Price (per ton: %) ¹	77	65	68	67	70	80	67	71	80	100	109	80
Hay Price/Soymeal Price (%) ²	31	28	32	33	35	39	37	50	49	39	34	28

¹ Cattle rations can vary between 25 to 33 percent hay or silage.

² 44 percent, Decatur.

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