

December 31, 2020 Marketing Update

Futures as of	12/31/20	12/24/20	Trend	
CZ21 Dec CORN	\$4.35	\$4.25	Bullish	2.4%
SX21 Nov SOYBEANS	\$11.12	\$10.83	Bullish	2.6%
CTZ21 Dec COTTON	\$74.87	\$73.70	Bullish	1.6%
WN21 Jul WHEAT	\$6.28	\$6.16	Bullish	2.0%
2022 Crop Prices				
CZ22 Dec CORN	\$4.03	\$3.98	Bullish	1.4%
SX22 Nov SOYBEANS	\$10.18	\$9.96	Bullish	2.1%
CTZ22 Dec COTTON	\$70.37	\$69.60	Bullish	1.1%
WN22 Jul WHEAT	\$6.16	\$6.06	Bullish	1.7%

2021 Executive Marketing seminar:

The 22nd Annual Executive Marketing: Developing a Marketing Plan meets January 5-7, 2021 via ZOOM. This online event will help you assess your financial position a guide you through the development of a WRITTEN marketing and risk management plan for 2021. Join us for over 10 hours of hands-on instruction. The faculty includes Dr. Dave Kohl, Virginia Tech; Scott Mickey, Clemson University; and Eric Snodgrass, Nutrien. To register go to:

<https://www.eventbrite.com/e/2021-executive-marketing-registration-131448553161>

MARKET UPDATE

The 2021 marketing year started last night, and the overnight futures market is providing more fireworks! As of 6:30 am the markets were trading at:

CZ21	Dec Corn	\$ 4.40	+ \$0.05
SX21	Nov Soybeans	\$11.40	+ \$0.29
CTZ21	Dec Cotton	\$ 0.75	Unchanged
WN21	Jul Wheat	\$ 6.33	+ \$0.05

Many producers find it difficult to “pull the trigger” when commodity markets are rallying. Maybe those producers are more interested in price optimization than managing price risk. Since August 2020, corn, soybeans, cotton and wheat prices have steadily climbed higher. Maybe prices will continue higher. But probably they won't.

What should the savvy risk manager do?



December 31, 2020 Marketing Update

In other words: **Construct a 2021 Marketing & Risk Management Plan.**

1. **Develop the Blueprint**
 - i. FLOID, Growth, Cash Flow
 - ii. Price for PROFIT (WILL price some too early)
2. **Lay a REVENUE Foundation**
 - i. Put Options
 - ii. Crop Insurance
3. **Frame up the Plan**
 - i. Strategies to add to Foundation Price
 - ii. Market Carry, Basis Changes, Storage Cost
4. **Add a Roof**
 - i. Sell Call Options above GROWTH
5. **Finishing Touches**
 - i. Monitor and adjust



The Tables below show the blueprint and REVENUE foundation strategies for FLOID Farms.

2021 Marketing Objectives

FLOID Farms

Crop	Total	Corn - CZ	Soybeans	Cotton	Peanuts, VA	Wheat, SRW
		Dry/Irrig	Dryland	Dryland	Dry/Irrig	Dryland
Intended Acres	3,500	1,800	350	750	600	0
Expected Yield		169	40	989	4,425	70
Operating Expenses / Acre		683	335	676	761	306
* Cash BREAKEVEN Price Target		\$4.59	\$10.83	\$0.78	\$0.19	\$5.70
Less: Expected Harvest Basis		\$0.60	\$0.10	\$0.01	\$0.00	-\$0.50
Futures BREAKEVEN Price Target		\$3.99	\$10.73	\$0.77	\$0.19	\$6.20

Futures - Commodity Pricing Signals

		Crop Revenue	Corn - CZ	Soybeans	Cotton	Peanuts, VA	Wheat, SRW
Agile (Growth)	Futures Price	\$2,810,016	\$4.29	\$12.00	\$0.82	\$0.20	\$6.91
	DUCK Value	\$175,252	\$0.30	\$1.27	\$0.05	\$0.01	\$0.72
	Crop Revenue		\$1,486,067	\$167,234	\$614,447	\$542,088	\$180
Resilient (Breakeven)	Futures Price	\$2,634,764	\$3.99	\$10.73	\$0.77	\$0.19	\$6.20
	Crop Revenue		\$1,395,948	\$149,711	\$576,897	\$512,048	\$159
Vulnerable (Cash Flow)	Futures Price	\$2,642,780	\$4.00	\$10.79	\$0.77	\$0.19	\$6.23
	WC Burned	-\$8,016	-\$0.01	-\$0.06	\$0.00	\$0.00	-\$0.03
	Crop Revenue		\$1,400,070	\$150,513	\$578,615	\$513,422	\$160

AGILE price covers FLOID and allocates 25% of Operating Profit to Equity Growth "Get a DUCK!"

RESILIENT price covers FLOID. (The difference between the AGILE and RESILIENT is the value of a DUCK)

VULNERABLE price covers FLOID by burning 100% of available working capital.

Join us at the 2021 Executive Marketing seminar to develop the blueprint for your Farming Operation.

Marketing: Strategies to Consider

As of December 31, 2020

	Corn-CU	Corn-CZ	Soybeans	Cotton	SRW W
GROWTH	\$4.19	\$4.29	\$12.00	\$0.82	\$6.36
BREAKEVEN	\$3.89	\$3.99	\$10.73	\$0.77	\$6.00
CASH FLOW	\$3.90	\$3.99	\$10.75	\$0.77	\$5.84

Strategy		CU21	CZ21	SX21	CTZ21	WN21	Comments
1 Sell Futures	Floor	\$4.47	\$4.35	\$11.12	\$0.75	\$6.28	Fixed Price: 1. If price is higher than "GROWTH" sell your "comfort zone" up to 50%. 2. Futures contracts may incur margin calls. Cash sales/Hedge to Arrive contracts will not.
2 Buy Put Option	Contract	CU21	CZ21	SX21	CTZ21	WN21	Minimum Price: 1. If floor is > BREAKEVEN, protect up to Guaranteed Production (if Revenue Protection) 2. If floor is < BREAKEVEN, consider Strategy 4. 3. No margin call risk. Premiums paid at time of purchase.
	Strike Price	\$4.50	\$4.40	\$11.00	\$0.70	\$6.30	
	Premium	-\$0.41	-\$0.41	-\$0.69	-\$0.06	-\$0.50	
	Floor	\$4.10	\$3.99	\$10.31	\$0.64	\$5.81	
3 Sell Call Option	Contract	CU21	CZ	SX	CTZ	WN	Price (& risk) Enhancer: 1. Select strike price >= GROWTH Price 2. Limits up side price to the sum of strike price + premium received. 3. Provides NO downside protection except premium from selling the call. 4. Margin call risk.
	Strike Price	\$5.20	\$5.20	\$13.00	\$0.78	\$7.00	
	Premium	\$0.19	\$0.17	\$0.33	\$0.02	\$0.26	
	Floor	\$0.19	\$0.17	\$0.33	\$0.02	\$0.26	
	Max Price	\$5.39	\$5.37	\$13.33	\$0.80	\$7.26	
4 Buy Put Option & Sell Call SUMMARY	Contract	CU	CZ21	SX21	CTZ21	WN21	Min-Max Contract or "Fence:" 1. Raises the floor price, and 2. Caps upside price at the strike price of the call sold. 3. Margin call risk on calls sold. * Provides a final price in the range the PUT strike and the CALL strike price. * Puts and Calls usually traded at the same time, but not mandatory.
	Strike Price	\$4.50	\$4.40	\$11.00	\$0.70	\$6.30	
	Premium	-\$0.41	-\$0.41	-\$0.69	-\$0.06	-\$0.50	
	Contract	CU	CZ21	SX21	CTZ21	WN21	
	Strike Price	\$5.20	\$5.20	\$13.00	\$0.78	\$7.00	
	Premium	\$0.19	\$0.17	\$0.33	\$0.02	\$0.26	
	Net Premium	-\$0.22	-\$0.25	-\$0.37	-\$0.04	-\$0.24	
	Floor	\$4.29	\$4.15	\$10.63	\$0.66	\$6.06	
	Max Price	\$5.20	\$5.20	\$13.00	\$0.78	\$7.00	

Marketing: Strategies to Consider

As of December 31, 2020

	Corn-CU	Corn-CZ	Soybeans	Cotton	SRW W
GROWTH	\$4.19	\$4.29	\$12.00	\$0.82	\$6.36
BREAKEVEN	\$3.89	\$3.99	\$10.73	\$0.77	\$6.00
CASH FLOW	\$3.90	\$3.99	\$10.75	\$0.77	\$5.84

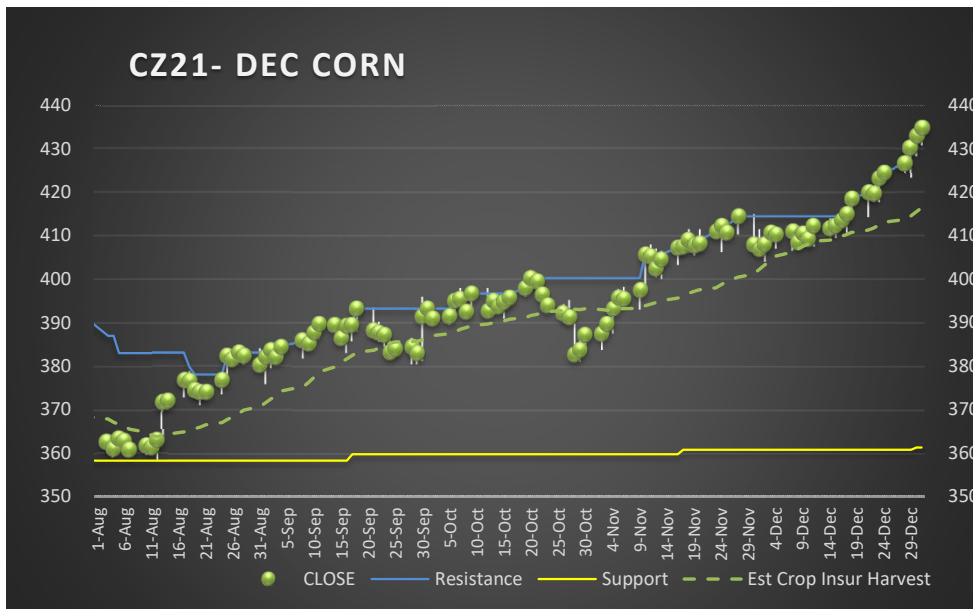
Strategy		CU21	CZ21	SX21	CTZ21	WN21	Comments	
5	Buy Put Option	Contract	CU	CZ21	SX21	CTZ21	WN21	Butterfly Spread: 1. Caps upside price at the strike price of the call sold, 2. Raises the floor price, but 3. Limits the downside protection ONLY to the strike price of the PUT SOLD. 4. Margin call risk on calls sold. 5. No margin risk on PUTS Sold as the gain on the Bought PUTS will offset PUT margin call. * Strike price of PUT SOLD should < expected low price for the commodity (100 day Support) * Raises the floor price higher then "Min-Max" but increases price risk. * Uptrending markets have less risk from selling puts
		Strike Price	\$4.50	\$4.40	\$11.00	\$0.70	\$6.30	
		Premium	-\$0.41	-\$0.41	-\$0.69	-\$0.06	-\$0.50	
& Sell Call	Contract	CU	CZ21	SX21	CTZ21	WN21		
	Strike Price	\$5.20	\$5.20	\$13.00	\$0.78	\$7.00		
	Premium	\$0.19	\$0.17	\$0.33	\$0.02	\$0.26		
& Sell Put	Contract	CU	CZ21	SX21	CTZ21	WN21		
	Strike Price	\$3.80	\$3.80	\$10.00	\$0.64	\$5.30		
	Premium	\$0.08	\$0.11	\$0.21	\$0.03	\$0.09		
SUMMARY	Net Premium	-\$0.13	-\$0.13	-\$0.15	-\$0.01	-\$0.15		
	Floor	\$4.37	\$4.27	\$10.85	\$0.69	\$6.15		
	Max Price	\$5.20	\$5.20	\$13.00	\$0.78	\$7.00		

* September & December Corn strategies are shown. Historically, the carry (price difference from Sep to Dec), will increase to \$0.10 to \$0.15 per bushel. The Sep Corn pricing targets are reduced \$0.10 per bushel.

* The "Floor" price strategies assume bought options expire "worthless." Producers can offset options any day until expiration. If a bought put option is sold before expiration, The "floor" rises by the put's offset price.

CORN SUPPLY & DEMAND		WASDE 12/10/2020				
	19/20	20/21	21/22	22/23	23/24	
	WASDE-607	WASDE-607	Estimate	Estimate	Estimate	
Planted	89.7	91.0	93.0	92.0	91.5	
Harvested	81.3	82.5	85.5	84.5	84.0	
Yield	167.5	175.8	179.5	181.5	183.5	
Beg Stocks	2,221	1,995	1,703	1,933	2,098	
Production	13,620	14,507	15,347	15,337	15,414	
Imports	42	25	33	33	31	
Total Supply	15,882	16,528	17,083	17,303	17,543	
Feed	5,827	5,700	5,925	6,000	6,100	
Food/Seed	1,430	1,425	1,425	1,430	1,435	
Ethanol	4,852	5,050	5,200	5,200	5,200	
Exports	1,778	2,650	2,600	2,575	2,600	
Total Demand	13,887	14,825	15,150	15,205	15,335	
Ending Stocks (ES)	1,995	1,703	1,933	2,098	2,208	
Percent Use	14%	11%	13%	14%	14%	
USDA Price	\$ 3.56	\$ 4.00	\$ -	-	-	
<i>Futures as of 12/31/2020</i>		\$4.84	\$4.35	\$4.03		

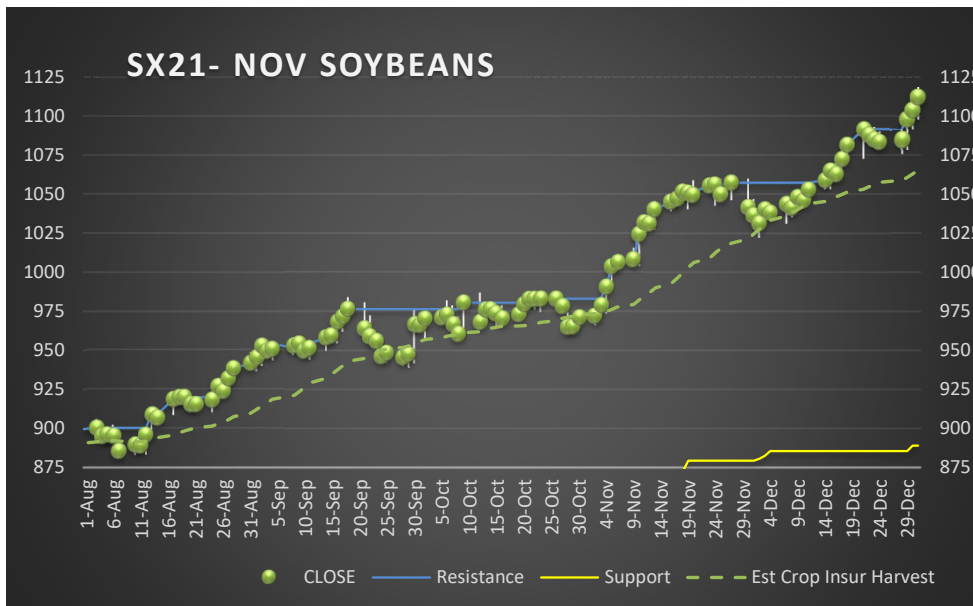
FUTURES PRICING SIGNALS	\$ 4.29	\$ 3.99	\$ 3.99
1) Futures as of 12/31/2020 =====>	\$4.35	CZ21	
2) What is Crop Insurance doing?	NC-CZ21	SC-CU21	
a) Base Price	\$ 4.16	\$ 4.21	
b) Harvest Price (PENDING)			
3) Fundamentals - where are prices headed?			
a) Seasonality		DOWN	
b) Ending Stocks		UP	
4) Technical Signals indicating?			
a) Resistance (Highest Close last 100 Days)			\$ 4.35
b) Support (Lowest Close last 100 Days)			\$ 3.61
c) Moving Average		Change	% Change
5 day	\$ 4.30	11 1/2	2.72%
20 day	\$ 4.18	26 3/4	6.56%
50 day	\$ 4.07	34 1/2	8.62%
100 day	\$ 3.96	73	20.18%
YTD	\$ 3.86	23	5.59%



STRATEGY Summary			
Tool	Percentage	Price	Contract
HTA/Futures	0%	\$0.00	ZCZ21
Options	0%	\$0.00	ZCZ21
Unpriced	100%	\$4.35	ZCZ21
Current Value	100%	\$4.35	CZ21
<i>+ Expected Basis</i>			
PENDING Actions			
1			
2			
3			
4			
5			

SOYBEAN SUPPLY & DEMAND		WASDE 12/10/2020				
	19/20	20/21	21/22	22/23	23/24	
	WASDE-607	WASDE-607	Estimate	Estimate	Estimate	
Planted	76.1	83.1	90.0	90.0	89.0	
Harvested	74.9	82.3	89.1	89.1	88.1	
Yield	47.4	50.7	51.1	51.6	52.2	
Beg Stocks	909	523	175	243	310	
Production	3,552	4,170	4,553	4,598	4,599	
Imports	15	15	15	15	15	
Total Supply	4,476	4,708	4,743	4,855	4,924	
Crush	2,165	2,195	2,180	2,200	2,220	
Seed/Residual	112	138	120	135	135	
Exports	1,676	2,200	2,200	2,210	2,220	
Total Demand	3,953	4,533	4,500	4,545	4,575	
End Stocks (ES)	523	175	243	310	349	
Percent Use	13%	4%	5%	7%	8%	
USDA Price	\$ 8.57	\$ 10.55	\$ -			
Futures as of 12/31/2020		\$13.11	\$11.12	\$10.18		

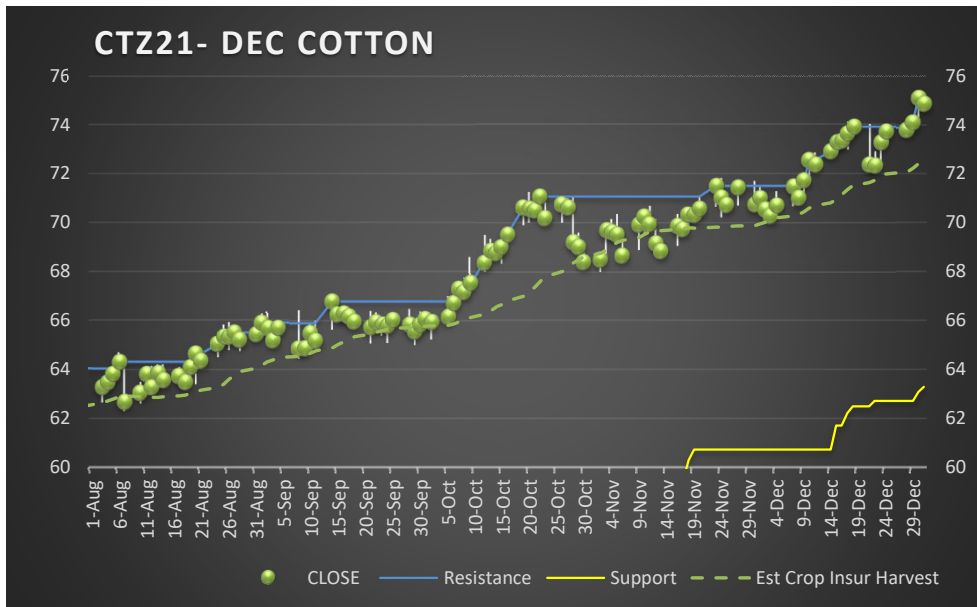
FUTURES PRICING SIGNALS	\$ 12.00	\$ 10.73	\$ 10.75
1) Futures as of 12/31/2020 =====>	\$11.12		SX21
2) What is Crop Insurance doing?	<u>2021</u>	<u>2020</u>	
a) Base Price	\$ 10.65	\$ 9.36	
b) Harvest Price (PENDING)			
3) Fundamentals - where are prices headed?			
a) Seasonality		DOWN	
b) Ending Stocks		UP	
4) Technical Signals indicating?			
a) Resistance (Highest Close last 100 Days)			\$ 11.12
b) Support (Lowest Close last 100 Days)			\$ 8.89
c) Moving Average		<u>Change</u>	<u>% Change</u>
5 day	\$ 10.96	27	2.49%
20 day	\$ 10.70	80 1/4	7.78%
50 day	\$ 10.37	132 1/2	13.53%
100 day	\$ 9.93	222 1/4	24.99%
YTD	\$ 9.27	156 1/2	16.38%



STRATEGY Summary			
Tool	Percentage	Price	Contract
HTA/Futures	0%	\$0.00	SX21
Options	0%	\$0.00	SX21
Unpriced	100%	\$11.12	SX21
Current Value	100%	\$11.12	SX21
+ Expected Basis			
PENDING Actions			
1			

COTTON SUPPLY & DEMAND					
WASDE 12/10/2020					
	19/20	20/21	21/22	22/23	23/24
	WASDE-607	WASDE-607	Estimate	Estimate	Estimate
Planted	13.74	12.12	12.12	12.12	12.12
Harvested	11.61	9.01	9.89	9.89	9.89
Yield	823.0	850.0	936.7	948.5	960.2
Beg Stocks	4.85	7.25	5.70	7.40	8.95
Production	19.91	15.95	19.31	19.55	19.79
Imports	0.01	-	-	-	-
Total Supply	24.77	23.20	25.00	26.95	28.74
Domestic Use	2.15	2.50	2.50	2.50	2.50
Exports	15.53	15.00	15.10	15.50	16.00
Total Demand	17.68	17.50	17.60	18.00	18.50
End Stocks (ES)	7.25	5.70	7.40	8.95	10.24
Stocks to Use	41%	33%	42%	50%	55%
USDA Price	\$ 59.60	\$ 65.00	\$ -	-	-
Futures as of 12/31/2020		\$78.12	\$74.87	\$70.37	\$0.00

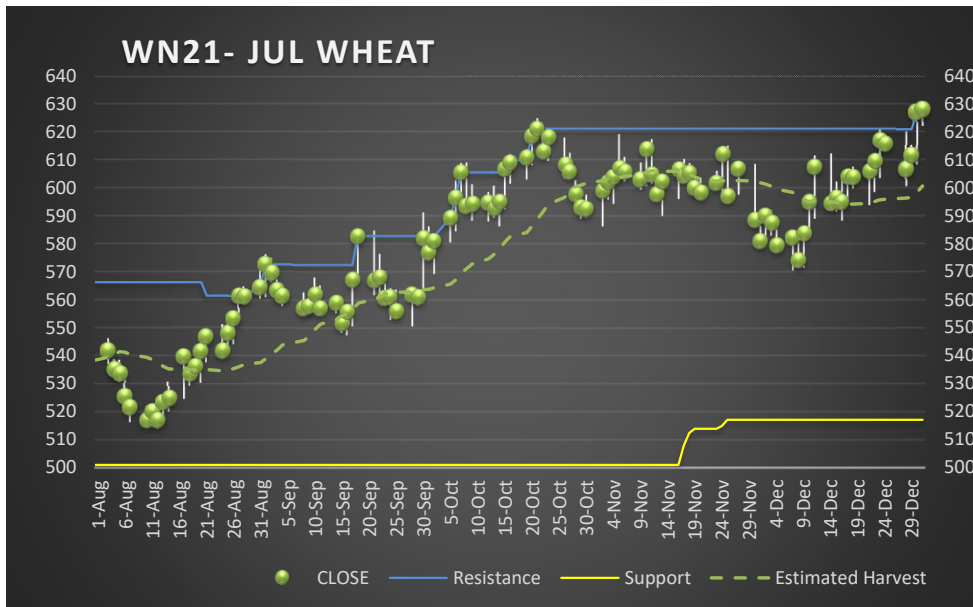
FUTURES PRICING SIGNALS	\$ 82.00	\$ 77.00	\$ 77.00
1) Futures as of 12/31/2020 =====>	\$74.87	CTZ21	
2) What is Crop Insurance doing?	<u>2021</u>	<u>2020</u>	
a) Base Price	\$73.00	\$70.00	
b) Harvest Price (PENDING)			
% loss due to price change	-4%	-10%	
3) Fundamentals - where are prices headed?			
a) Seasonality	Down		
b) Ending Stocks	DOWN		
4) Technical Signals indicating?			
a) Resistance (Highest Close last 100 Days)			\$ 75.11
b) Support (Lowest Close last 100 Days)			\$ 63.28
c) Moving Average		<u>Change</u>	<u>% Change</u>
5 day	\$ 74.32	1.60	2.18%
20 day	\$ 72.84	4.32	6.12%
50 day	\$ 71.17	4.30	6.09%
100 day	\$ 68.59	11.80	18.71%
YTD	\$ 64.52	4.55	6.47%



STRATEGY Summary			
Tool	Percentage	Price	Contract
HTA/Futures	0%	\$0.00	CTZ21
Options	0%	\$0.00	CTZ21
Unpriced	100%	\$74.87	CTZ21
Current Value	100%	\$74.87	CTZ21
+ Expected Basis			
PENDING Actions			
1			

WHEAT SUPPLY & DEMAND		WASDE 12/10/2020				
	19/20	20/21	21/22	22/23	23/24	
	WASDE-607	WASDE-607	Estimate	Estimate	Estimate	
Planted	45.5	44.3	46.5	45.5	45.0	
Harvested	37.4	36.7	38.8	37.8	37.3	
Yield	51.7	49.7	48.8	49.2	49.6	
Production	1,932	1,826	1,893	1,860	1,850	
Beg Stocks	1,080	1,028	862	840	807	
Imports	105	120	140	139	140	
Total Supply	3,117	2,974	2,896	2,839	2,797	
Feed	101	100	79	79	79	
Food, Seed	1,023	1,027	1,027	1,028	1,029	
Exports	965	985	950	925	920	
Total Demand	2,089	2,112	2,056	2,032	2,028	
End Stocks	1,028	862	840	807	769	
Percent Use	49%	41%	41%	40%	38%	
USDA Price	\$ 4.58	\$ 4.70	\$ -	-	-	
Futures as of 12/31/2020	\$6.41	\$6.28	\$6.16	\$6.16	\$6.16	

FUTURES PRICING SIGNALS	\$ 6.36	\$ 6.00	\$ 5.84
1) Futures as of 12/31/2020 =====>	\$6.28	WN21	
2) What is Crop Insurance doing?	<u>2021</u>	<u>2020</u>	
a) Base Price	\$ 5.54	\$ 4.86	
b) Harvest Price (PENDING)	\$ 6.18	\$ 4.97	
% loss due to price change	12%	2%	
3) Fundamentals - where are prices headed?			
a) Seasonality	DOWN		
b) Ending Stocks	UP		
4) Technical Signals indicating?			
a) Resistance (Highest Close last 100 Days)	\$ 6.28		
b) Support (Lowest Close last 100 Days)	\$ 5.17		
c) Moving Average		Change	% Change
5 day	\$ 6.18	11 1/4	1.82%
20 day	\$ 6.01	38 1/4	6.48%
50 day	\$ 6.02	9 3/4	1.58%
100 day	\$ 5.84	111 1/4	21.52%
YTD	\$ 5.59	53 1/2	9.31%



STRATEGY Summary			
Tool	Percentage	Price	Contract
HTA/Futures	0%	\$0.00	WN21
Options	0%	\$0.00	WN21
Unpriced	100%	\$6.28	WN21
Current Value	100%	\$6.28	WN21
+ Expected Basis			
PENDING Actions			
1			
2			
3			