

FEED INGREDIENT SUPPLY AND PRICING

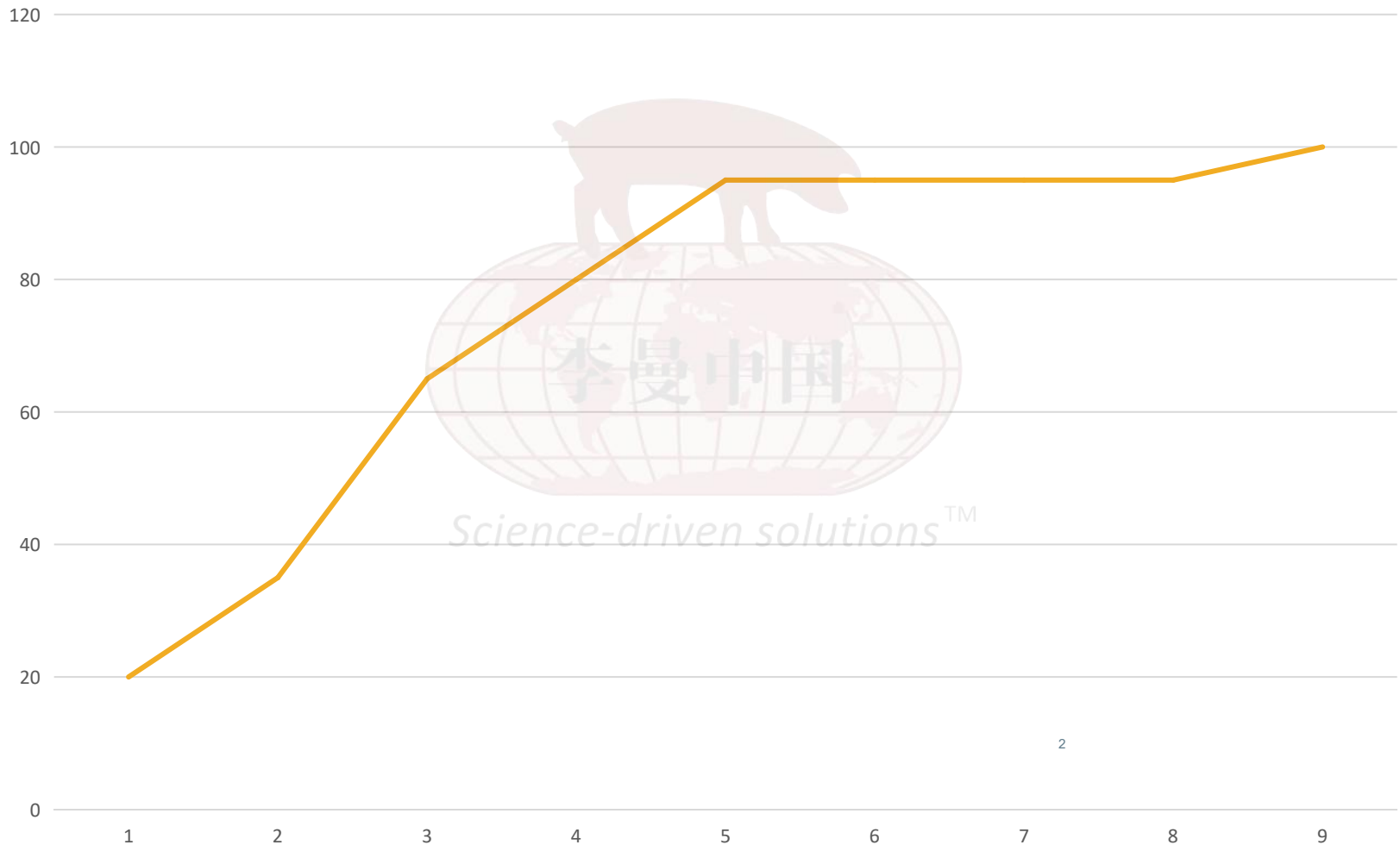
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Just My Thoughts on Where Agriculture in The Cycle

If Inflation Were a Baseball Game



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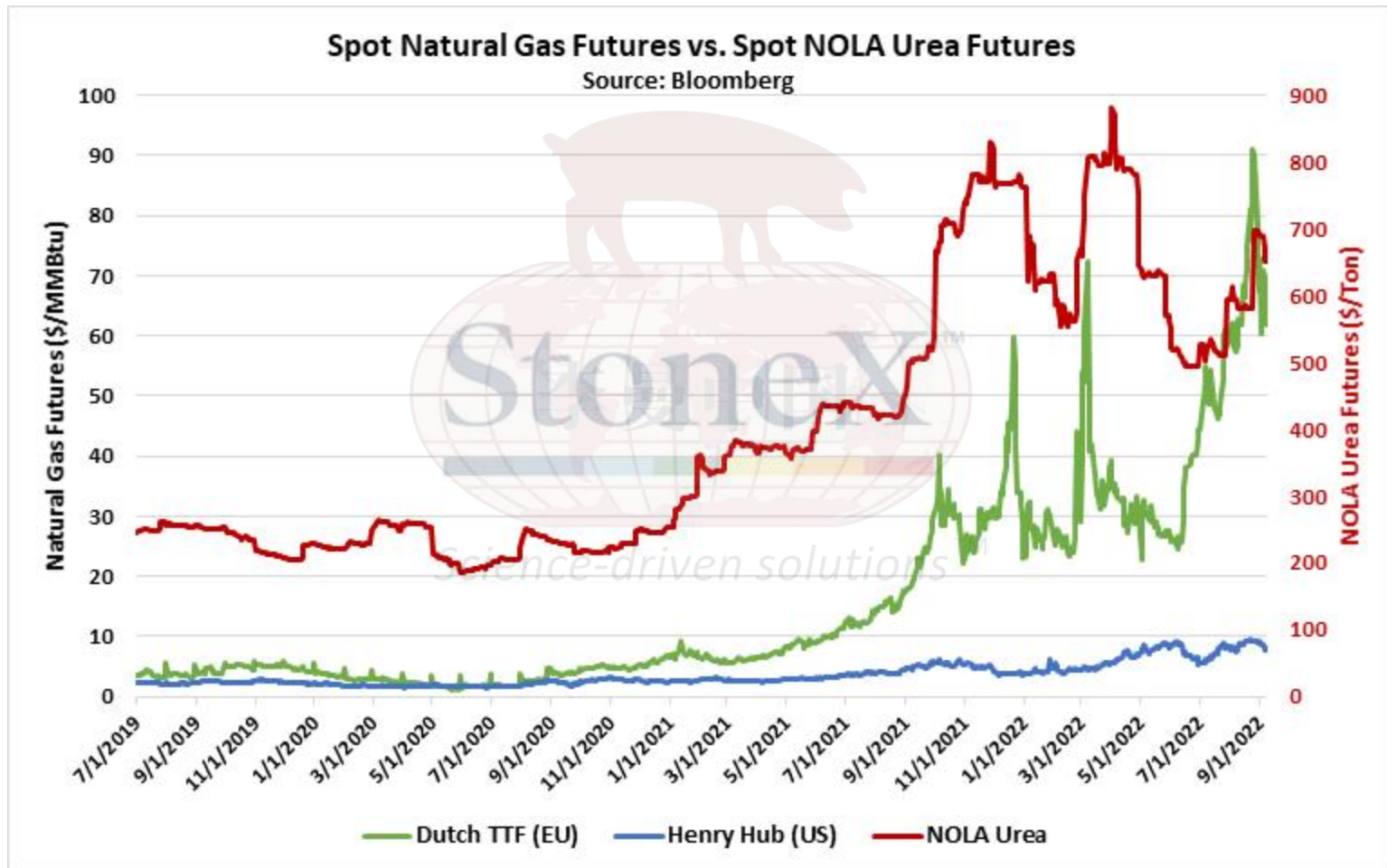
Here's where the Inflation Call goes awry...

INVASION LEADS TO OCCUPATION

Black Sea Region's Share of Global Fertilizer Exports (5-Yr Avg)



What the heck is it going to cost to plant a crop?



The U.S. Position vs R.O.W.

In a time of question, who is your favorite customer?

- Those with the most cash
- Those with the best credit

It is possibly going to cost a heckuva lot more

- The US will likely get what they need
- Just not at prices they like

Who gets the best deal first?

- The US



THE DROUGHT



Science-driven solutions™

CORN

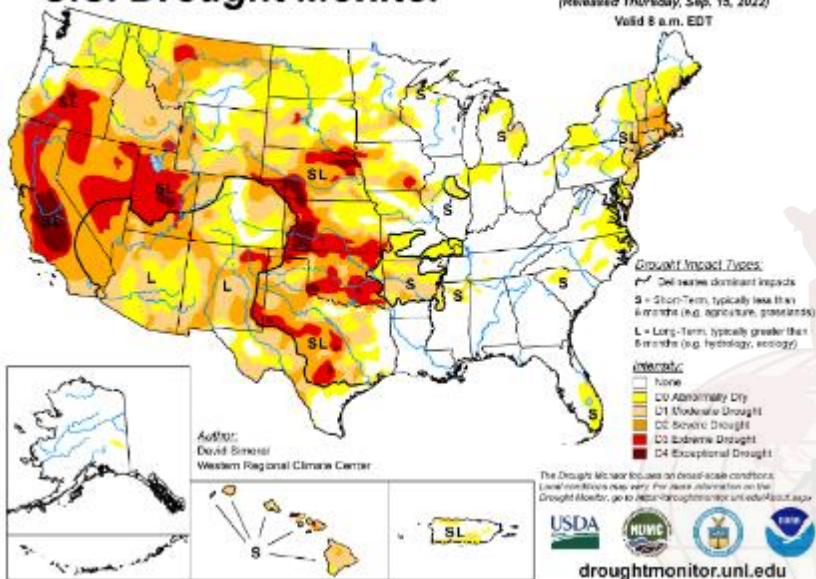


Drought Monitor

Current Conditions

U.S. Drought Monitor

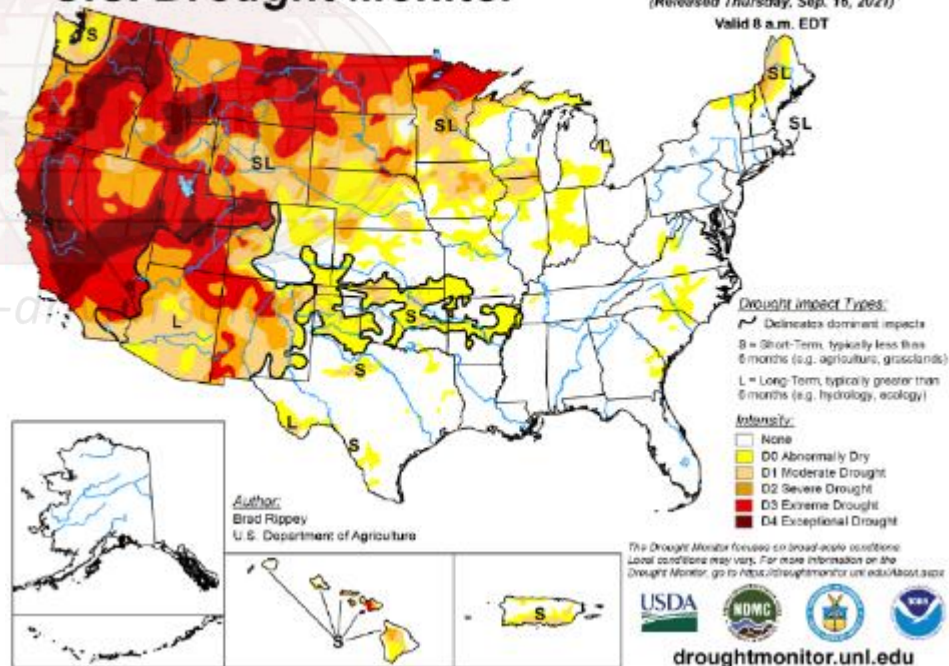
September 13, 2022
 (Released Thursday, Sep. 15, 2022)
 Valid 8 a.m. EDT



A Year Ago 2021

U.S. Drought Monitor

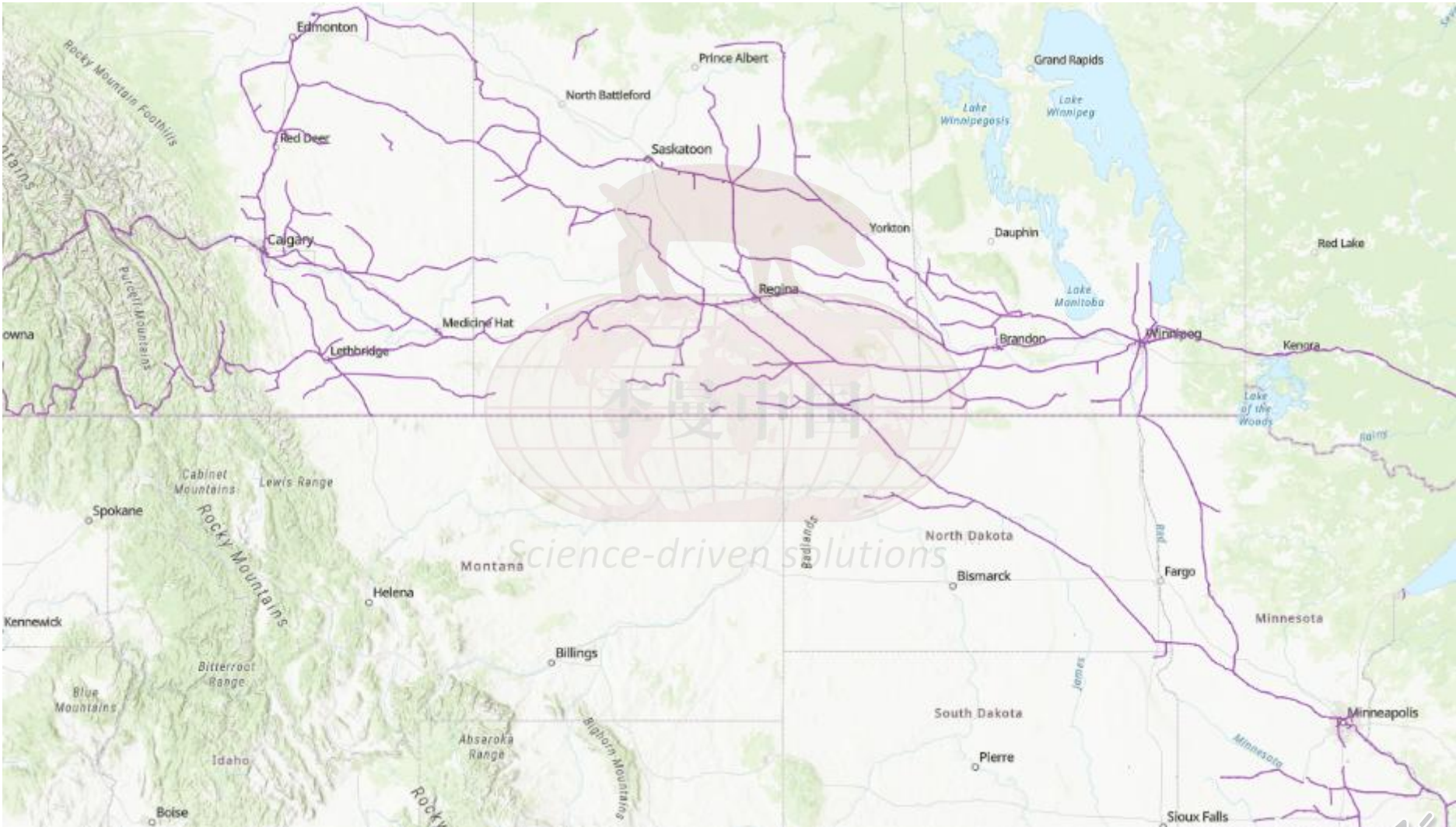
September 14, 2021
 (Released Thursday, Sep. 16, 2021)
 Valid 8 a.m. EDT



Science-a...



Due to the Drought Monitor, Rail Performance Matters

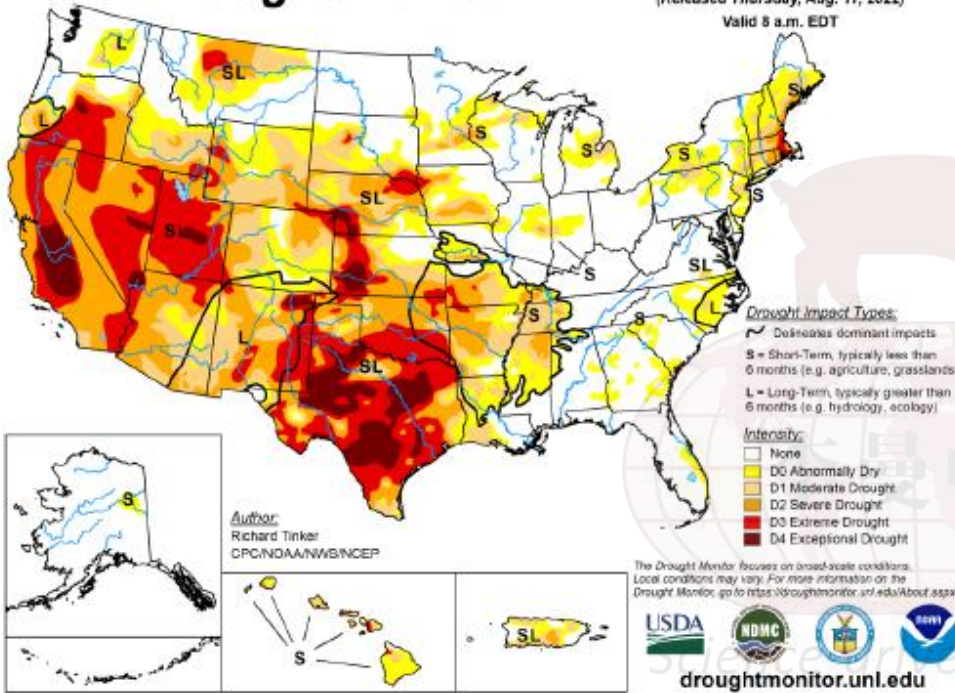


My Friends in Low Places

Current Conditions

U.S. Drought Monitor

August 9, 2022
(Released Thursday, Aug. 11, 2022)
Valid 5 a.m. EDT



- It is really bad out there
- Folks are ticked that none of the crop tours will get far enough west to show just how bad it is
 - Inflated US Yield #'s?
- Even irrigated ground is struggling
- The flow of cattle will be felt harder in about 6-9 months
- They're going to need to buy feed from the North

- There is a LOT of "But's" here
- How much can move?



Problems in the SW Continued...

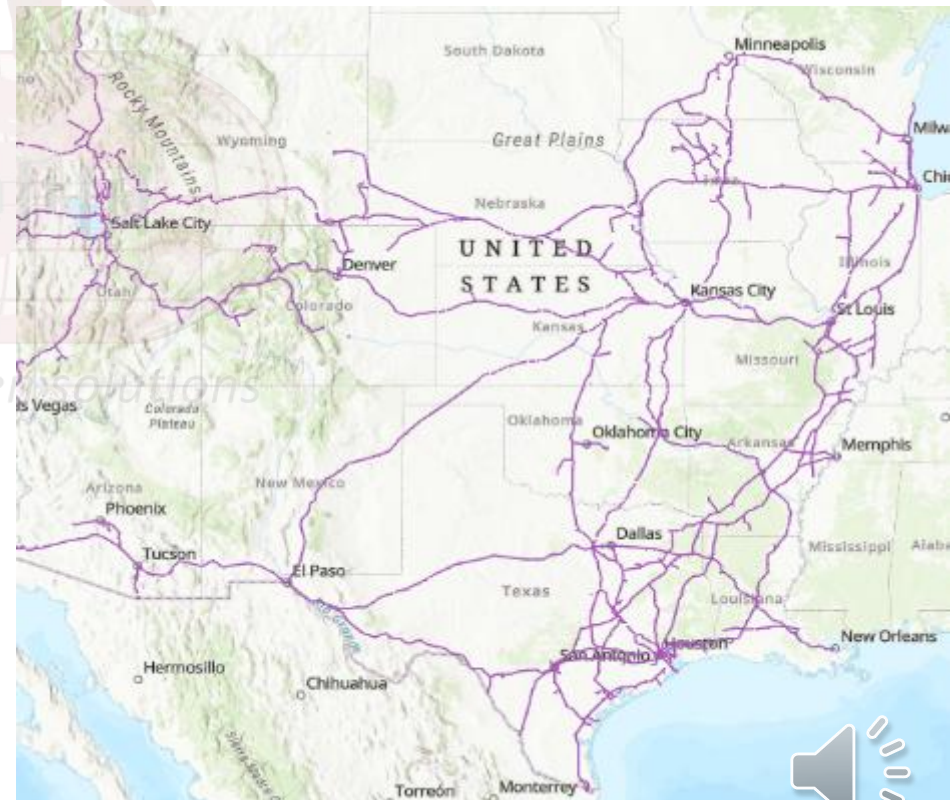


BNSF

- Considering how short it is, demand has to be rationed
- Feed Milo? Sure
- Mike O'Dea Quote
 - Short crops have long tails, What do no crops have?

- Our brokers say there is 463 mbu less production in CO, NE, KS, OK, & TX
- That's 1,324 shuttles
- Something has to give

UP



But what gives?

Cattle Crush Spreads - 150 Day Feeding Period

CATTLE CRUSH PRICE			10 YEAR CRUSH HISTORY			Current
<u>Production</u>		<u>\$/Head</u>	<u>Ave</u>	<u>High</u>	<u>Low</u>	<u>Percentile</u>
Sep	Jan	178.00	84.49	181.00	-12.59	99%
Oct	Feb	166.19	85.49	200.00	-42.67	95%
Nov	Mar	191.91	86.49	250.00	-38.66	94%
Dec	Apr	181.04	87.49	256.56	-19.56	91%
Jan	May	134.54	88.49	152.93	-96.94	97%
Feb	June	116.60	89.49	149.86	-88.44	86%
Mar	July	114.50	90.49	145.36	-105.24	93%
Apr	Aug	111.88	91.49	145.55	-80.80	91%
May	Sep	134.83	92.49	184.74	-69.96	91%
Jun	Oct	92.45	93.49	143.18	-31.16	79%
July	Nov	128.75	94.49	157.28	-27.86	90%
Aug	Dec	128.75	95.49	161.30	-27.86	90%



But what gives?

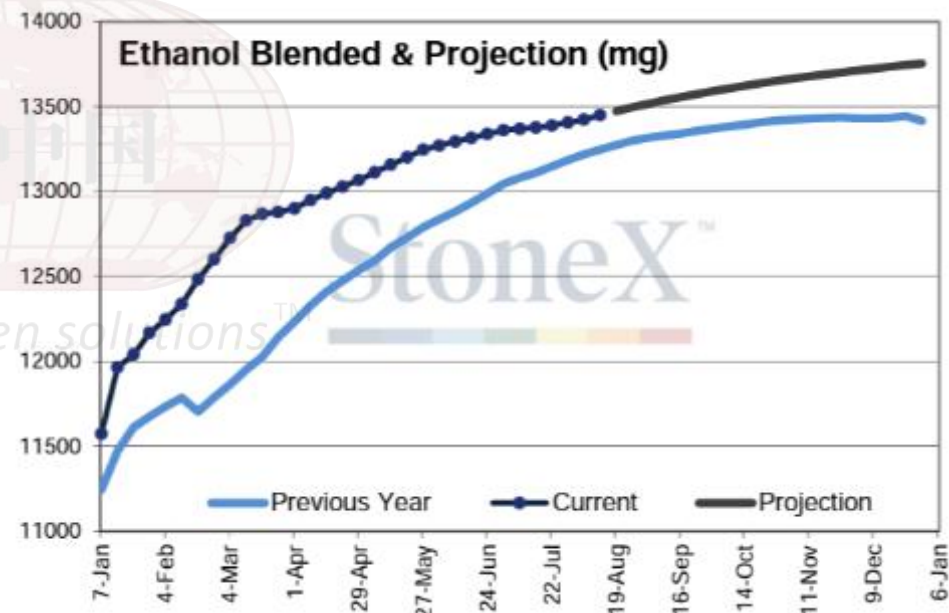
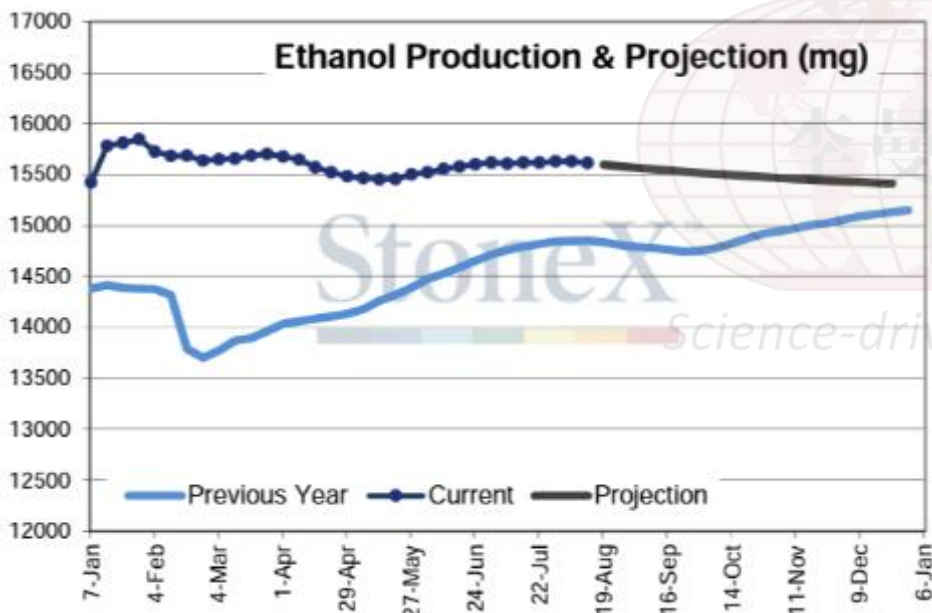
Hog Crush Spreads - 120 Day Feeding Period

<u>HOG CRUSH PRICE</u>						
<u>Production</u>		<u>\$/Head</u>	<u>Ave</u>	<u>High</u>	<u>Low</u>	<u>Percentile</u>
Sep	Dec	93.76	88.62	155.31	41.32	65%
Oct	Jan	100.68	89.62	150.61	51.53	69%
Nov	Feb	101.01	90.62	150.59	49.39	68%
Dec	Mar	109.15	91.62	140.33	64.89	79%
Jan	Apr	109.32	92.62	139.51	64.22	78%
Feb	May	116.72	93.62	150.00	78.57	76%
Mar	June	128.15	94.62	165.00	85.96	83%
Apr	July	127.71	95.62	185.81	85.34	84%
May	Aug	129.18	96.62	187.84	62.95	85%
Jun	Sept	102.89	97.62	147.26	53.47	77%
Jul	Oct	104.41	98.62	176.26	49.87	77%
Aug	Nov	93.25	99.62	155.31	42.48	65%



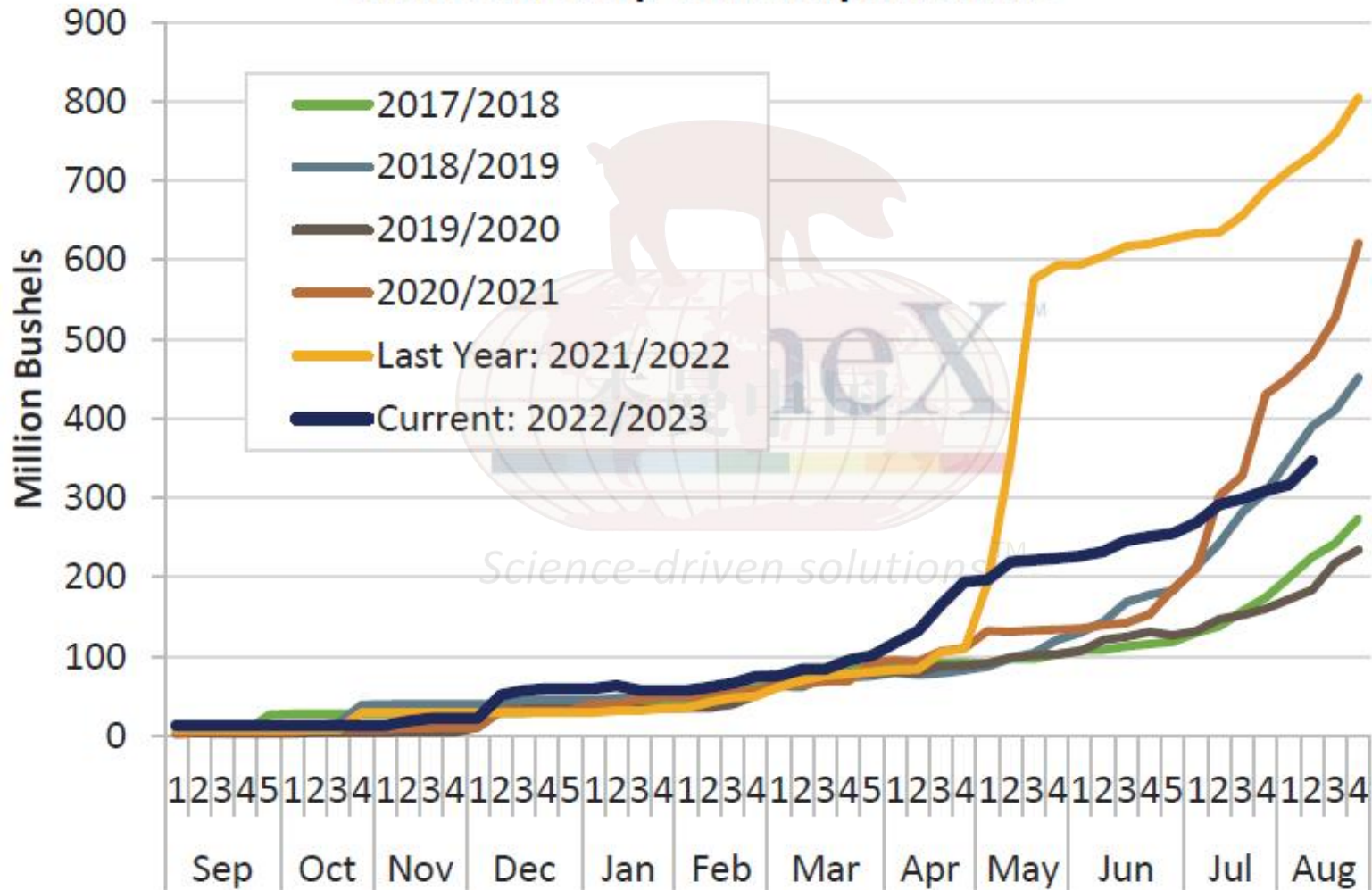
But what gives?

- My outlook for energy is flat
- I don't think we will take too much demand out
- The energy companies have figured out the “governor” on supply



But what gives?

U.S. New-Crop Corn Export Sales



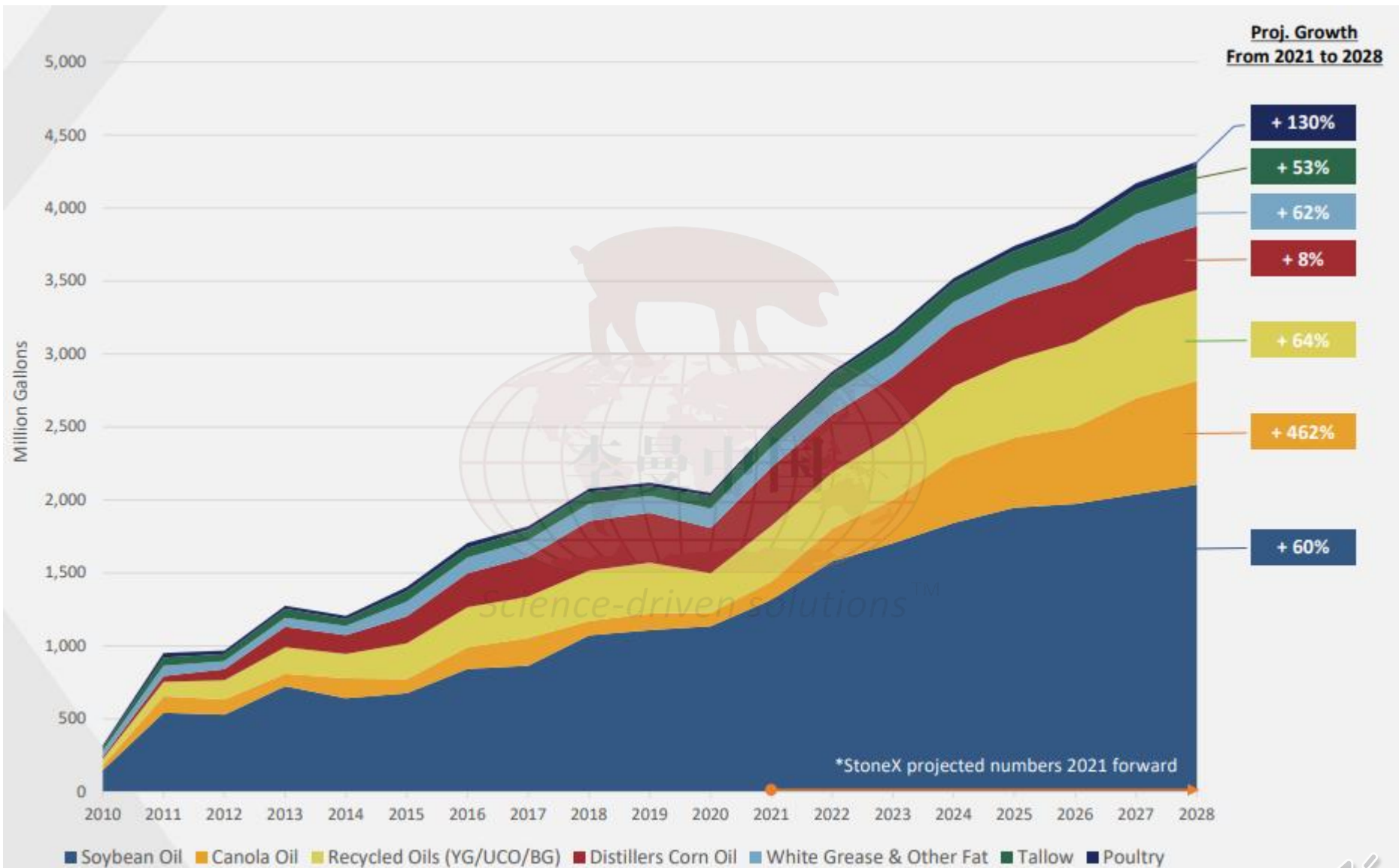
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Let's Not Bury The Lead



Source: Nate Burk – StoneX Renewable Fuels



Let's Not Bury The Lead

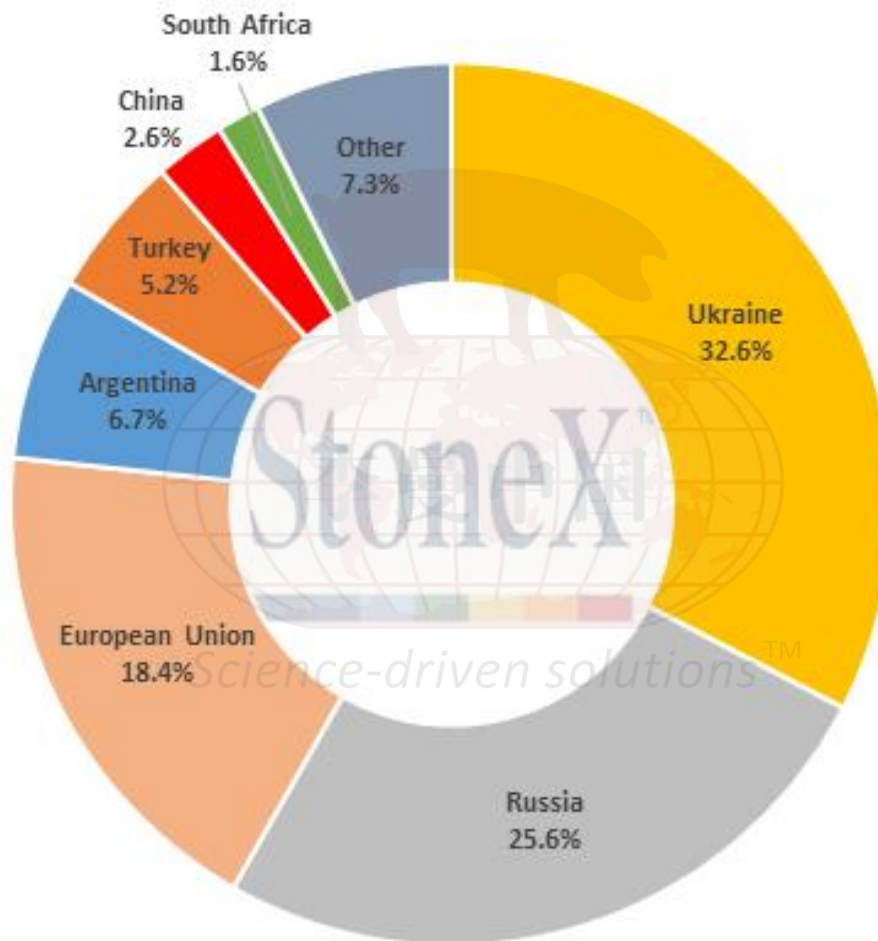
			Daily Crush	Annual Crush	
Cargill	Sidney	OH	100,000	35,000,000	2022-23
Shell Rock	Shell Rock	IA	<u>110,000</u>	<u>38,500,000</u>	Late 2022
		Total Bushels	210,000	73,500,000	
		Total Gallons of Oil	330,400	115,640,000	
ADM	Spirit Wood	ND	150,000	52,500,000	Fall 2023
Epitome	Crookston	MN	120,000	42,000,000	Late 2023
AGP	Sergeant Bluff	IA	<u>50,000</u>	<u>17,500,000</u>	Late 2023
		Total Bushels	320,000	112,000,000	
		Total Gallons of Oil	503,467	176,213,333	
Platinum Crush, LLC	Alta	IA	110,000	38,500,000	Q2 2024
Bunge/Chevron	Cairo	IL	135,000	47,250,000	Late 2024
Bunge/Chevron	Destrehan	LA	135,000	47,250,000	Late 2024
MNSP/CGB	Castleton	ND	125,000	43,750,000	Late 2024
Bartlett	Montgomery County	KS	110,000	38,500,000	Late 2024
Norfolk Crush	Norfolk	NE	110,000	38,500,000	Late 2024
Marquis Energy	Hennepin	IL	<u>110,000</u>	<u>38,500,000</u>	Late 2024
		Total Bushels	835,000	292,250,000	
		Total Gallons of Oil	1,313,733	459,806,667	
Incobrasa	Gilman	IL	120,000	42,000,000	2025
SDSP	Mitchell	SD	100,000	35,000,000	2025
AGP	David City	NE	<u>143,000</u>	<u>50,050,000</u>	Mid 2025
		Total Bushels	363,000	127,050,000	
		Total Gallons of Oil	571,120	199,892,000	
		All New Capacity	1,728,000	604,800,000	
		Total Gallons of Oil	2,718,720	951,552,000	

Source: Nate Burk – StoneX Renewable Fuels



For Beans – Russia/Ukraine is all about Sun Oil

Avg Share of World Sunflower Oil Production - Last 5 Years



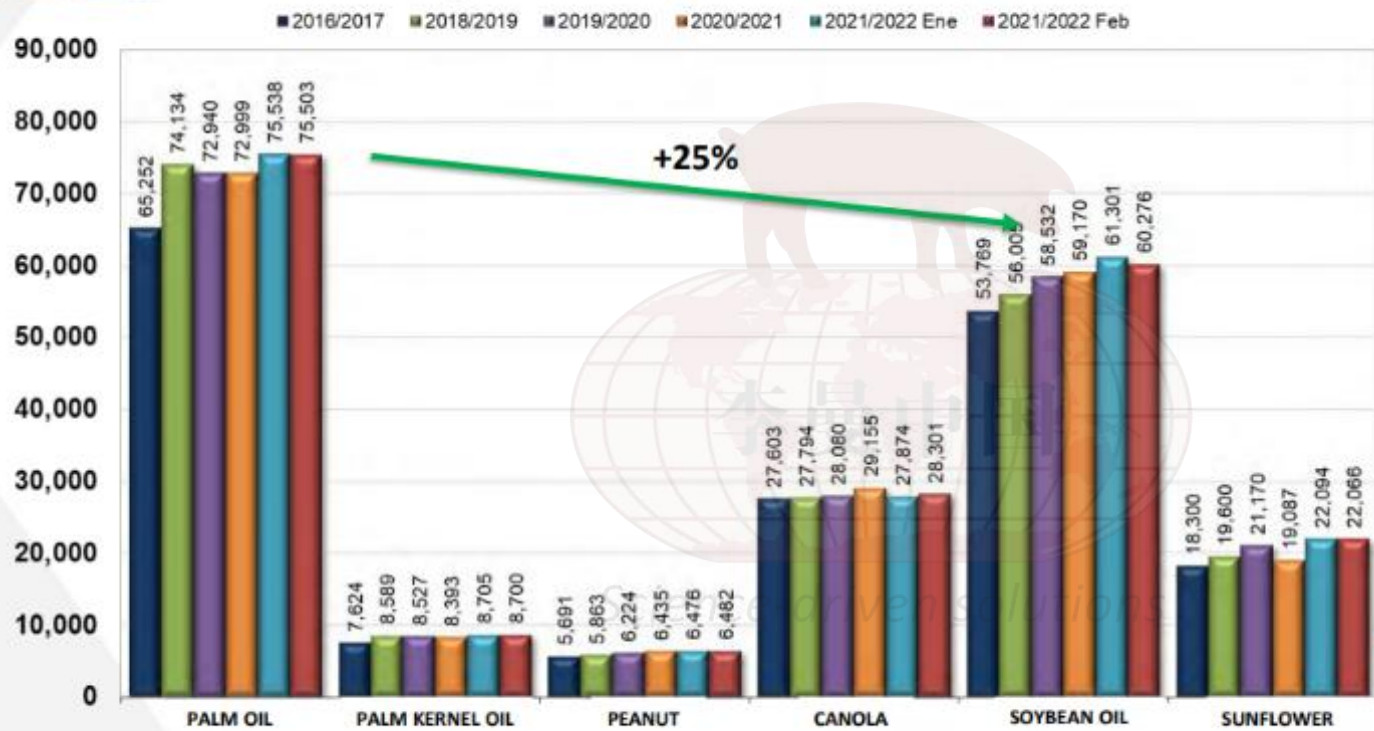
Source: USDA FAS



For Beans – Russia/Ukraine is all about Sun Oil



Vegetable Oils – World Production



13M t/m
Ukraine & Russia

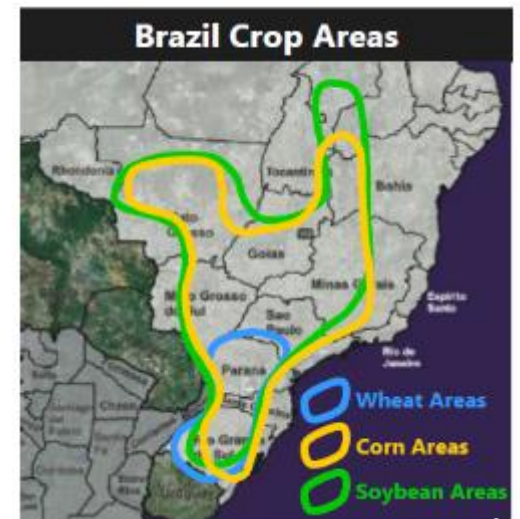
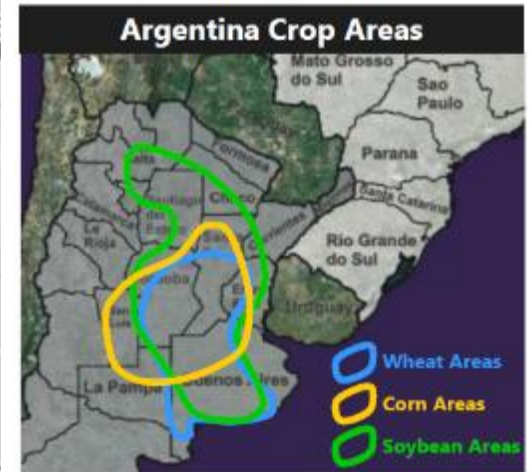
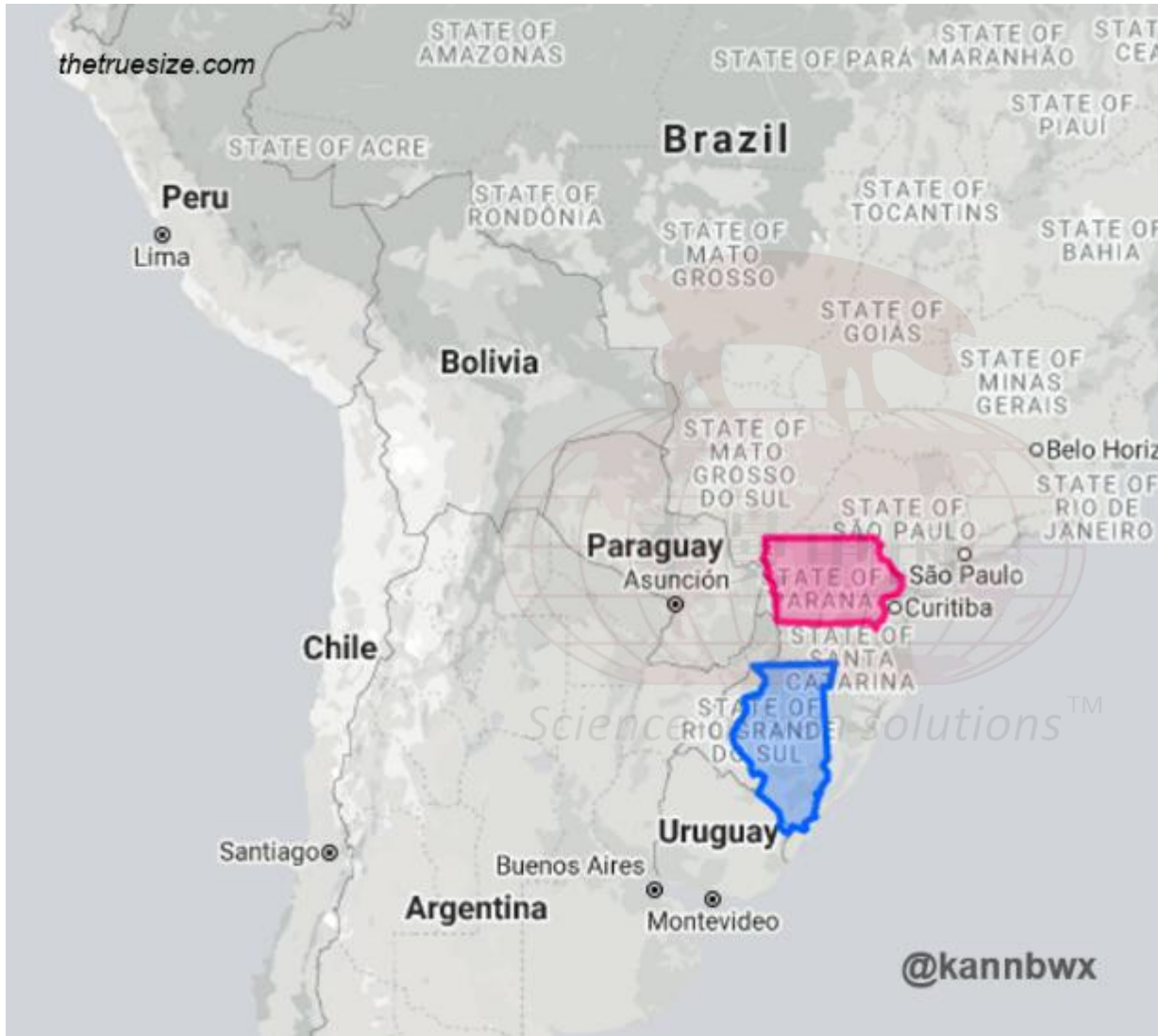
60% !

United States Department of Agriculture

Chart Courtesy of Albert Scalla - StoneX



Yah – They Ain't Makin Any More of It



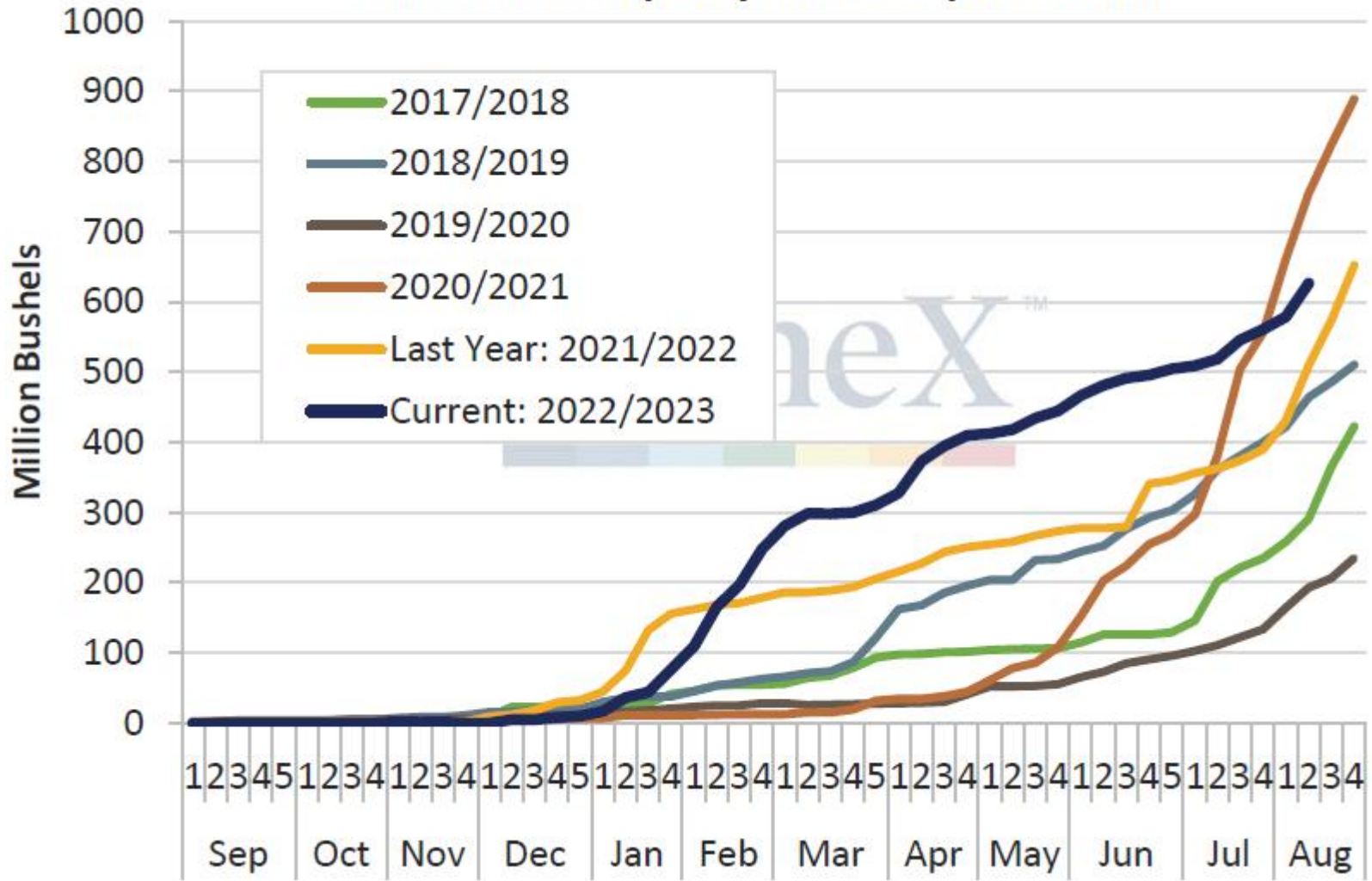


THE LOCAL



The Battle for Bushels Has Begun

U.S. New-Crop Soybeans Export Sales



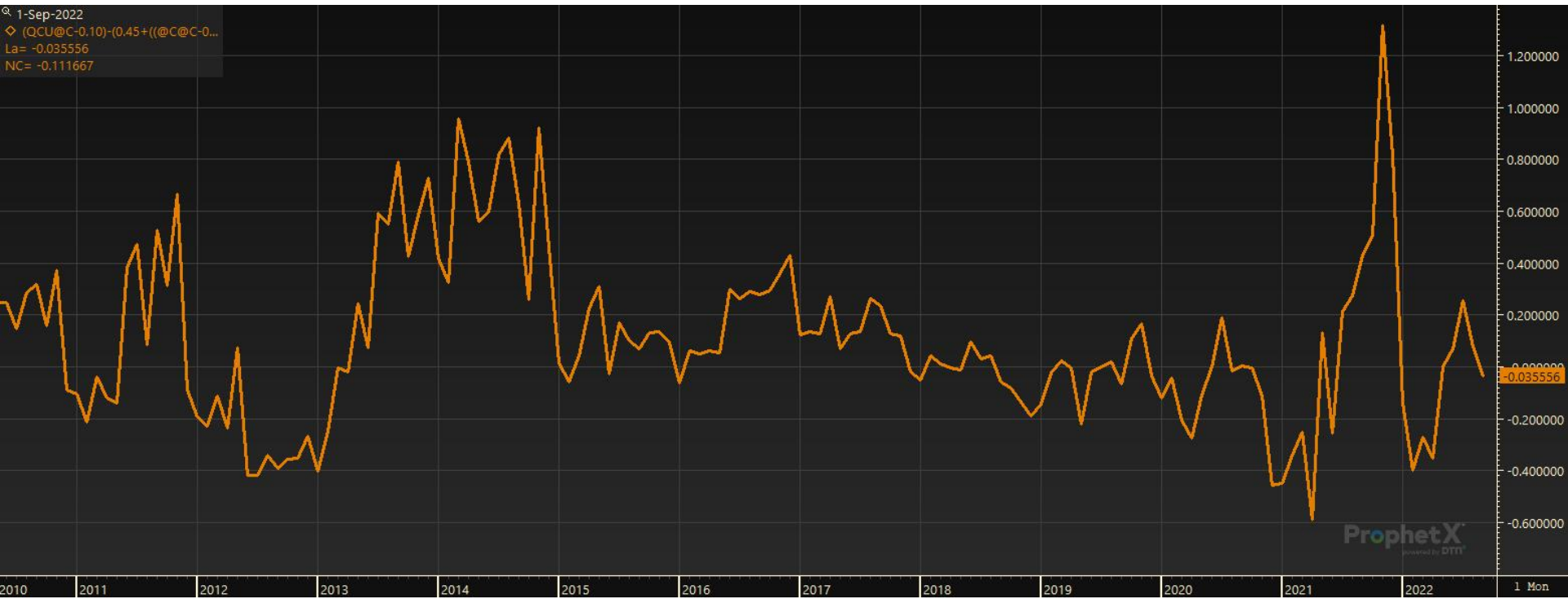
But...the US is likely going to lose that battle

Soybean Basis (cents/bushel)

		Paranaguá	Santos	Rio Grande	Itaqui	US Gulf
Oct-2022 (SX2)	Ask	212.3 (0.0)	229.0 (0.0)	229.0 (0.0)	219.0 (0.0)	190.0 (-5.0)
	Bid	186.0 (-5.0)	179.0 (0.0)	179.0 (0.0)	179.0 (0.0)	
Nov-2022 (SX2)	Ask	200.0 (0.0)				160.0 (-5.0)
	Bid	150.0 (0.0)				
Dec-2022 (SF3)	Ask					145.0 (-5.0)
Jan-2023 (SF3)	Ask					140.0 (-3.0)
Feb-2023 (SH3)	Ask	72.0 (-1.0)				130.0 (0.0)
	Bid	63.0 (0.3)				
Mar-2023 (SH3)	Ask	40.7 (-1.3)				
	Bid	36.7 (-3.3)				
Apr-2023 (SK3)	Ask	38.7 (0.0)				
	Bid	34.7 (-1.0)				
May-2023 (SK3)	Ask	43.0 (0.0)				
	Bid	38.3 (-0.3)				
Jun-2023 (SN3)	Ask	62.0 (2.0)				
	Bid	54.3 (2.0)				
Jul-2023 (SN3)	Ask	61.5 (1.5)				
	Bid	54.0 (1.0)				



10-Year Board Crush



Processors will likely pay if they have to



TIPS & SUMMARY

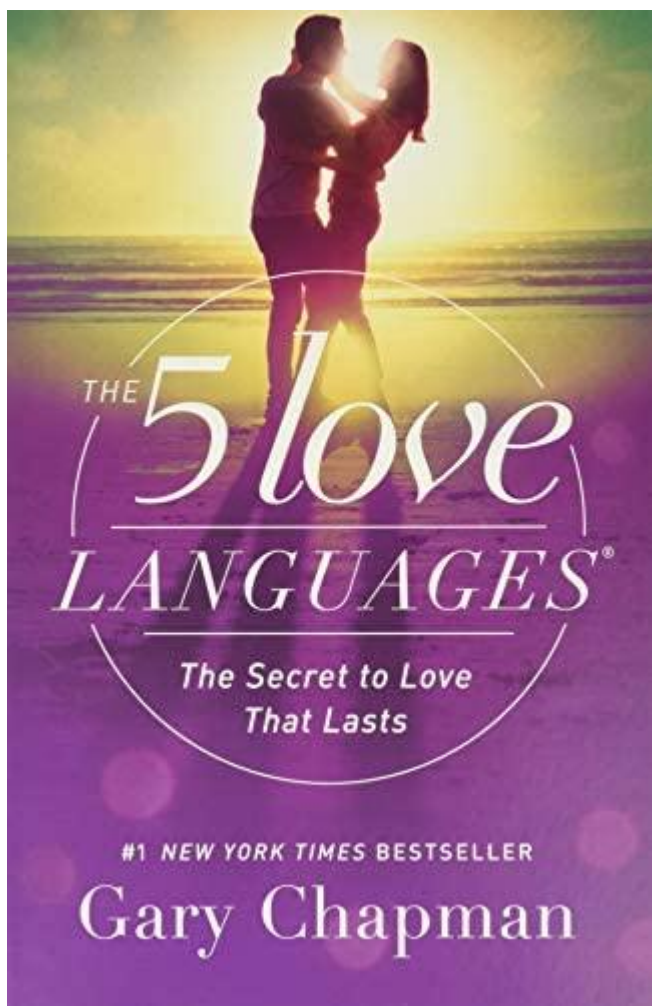


SEPTEMBER 2022 REPORT

<u>Wheat Supply/Demand</u>				<u>Corn Supply/Demand</u>				<u>Soybean Supply/Demand</u>			
	USDA	USDA	USDA		USDA	USDA	USDA		USDA	USDA	USDA
	<u>20/21</u>	<u>21/22</u>	<u>22/23</u>		<u>20/21</u>	<u>21/22</u>	<u>22/23</u>		<u>20/21</u>	<u>21/22</u>	<u>22/23</u>
Planted	44.5	46.7	47.0	Planted	90.7	93.4	88.6	Planted	83.4	87.2	87.5
Harvested	36.8	37.2	37.5	Harvested	82.3	85.4	80.8	Harvested	82.6	86.3	86.6
Yield	49.7	44.3	47.5	Yield	171.4	177.0	172.5	Yield	51.0	51.4	50.5
Carryin	1028	845	660	Carryin	1919	1235	1525	Carryin	525	257	240
Production	1828	1646	1783	Production	14111	15115	13944	Production	4216	4435	4378
<u>Imports</u>	<u>100</u>	<u>95</u>	<u>110</u>	<u>Imports</u>	<u>24</u>	<u>25</u>	<u>25</u>	<u>Imports</u>	<u>20</u>	<u>15</u>	<u>15</u>
Supply	2957	2586	2553	Supply	16055	16375	15494	Supply	4761	4707	4633
Food	961	972	970	Feed	5598	5600	5225	Crush	2141	2205	2225
Exports	992	800	825	Exports	2753	2475	2275	Exports	2261	2145	2085
Seed	64	60	68	Ethanol	5033	5330	5325	Seed	101	102	102
<u>Feed/Res</u>	<u>95</u>	<u>94</u>	<u>80</u>	<u>Other Ind</u>	<u>1437</u>	<u>1445</u>	<u>1450</u>	<u>Residual</u>	<u>1</u>	<u>16</u>	<u>21</u>
Demand	2111	1926	1943	Demand	14821	14850	14275	Demand	4504	4467	4433
Carryout	845	660	610	Carryout	1235	1525	1219	Carryout	257	240	200
CO/Use	40.0%	34.3%	31.4%	CO/Use	8.3%	10.3%	8.5%	CO/Use	5.7%	5.4%	4.5%
Price	\$5.05	\$7.63	\$9.00	Price	\$4.53	\$5.95	\$6.75	Price	\$10.80	\$13.30	\$14.35



Tip 1: Learn Your Banker's Love Language



		Corn Price	5.75	Daily I
Sept	8/31/2022	I - Rate	5.0%	0.000799
Dec	11/30/2022	91	0.0727	
March	2/28/2023	90	0.0719	Z:H
May	4/30/2023	151	0.1206	Z:K
July	6/30/2023	212	0.1693	Z:N
Sept	8/31/2023	274	0.2188	Z:U
		Soy Price	13.5	Daily I
Sept	8/31/2022	I - Rate	5.0%	0.001875
Nov	10/31/2022	61	0.0487	
Jan	12/31/2022	61	0.0487	X:F
March	2/28/2023	120	0.0958	X:H
May	4/30/2023	181	0.1445	X:K
July	6/30/2023	242	0.1933	X:N

The Grain Industry is going to need to borrow A LOT of Money



Tip 2: Don't be Afraid

- Powerful demand markets can be good for US
 - We just have to manage them differently
- The spread & basis volatility is not likely to go away
- Don't discount Argentina in the near future
- Watching this Fertilizer mess work out in Brazil will tell us A LOT



Tip 3: Buy 1 for you and 1 for an Urban Consumer

