NC STATE UNIVERSITY | 125 YEARS

Soybean, Corn, and Wheat Market Update for 2022 and Beyond

Nick Piggott
Dept of Agricultural & Resource Economics
North Carolina State University

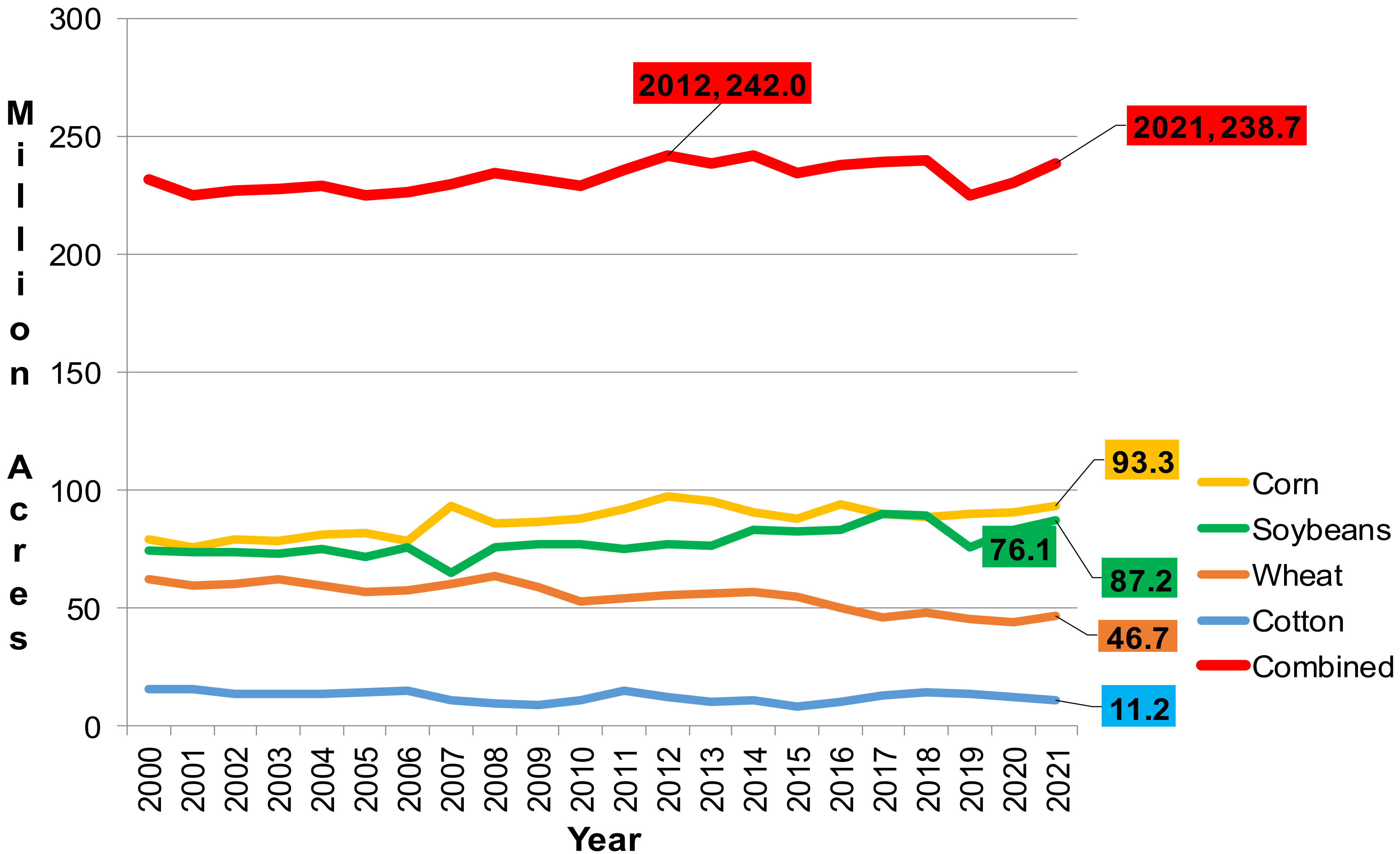
Email: *nick_piggott@ncsu.edu*

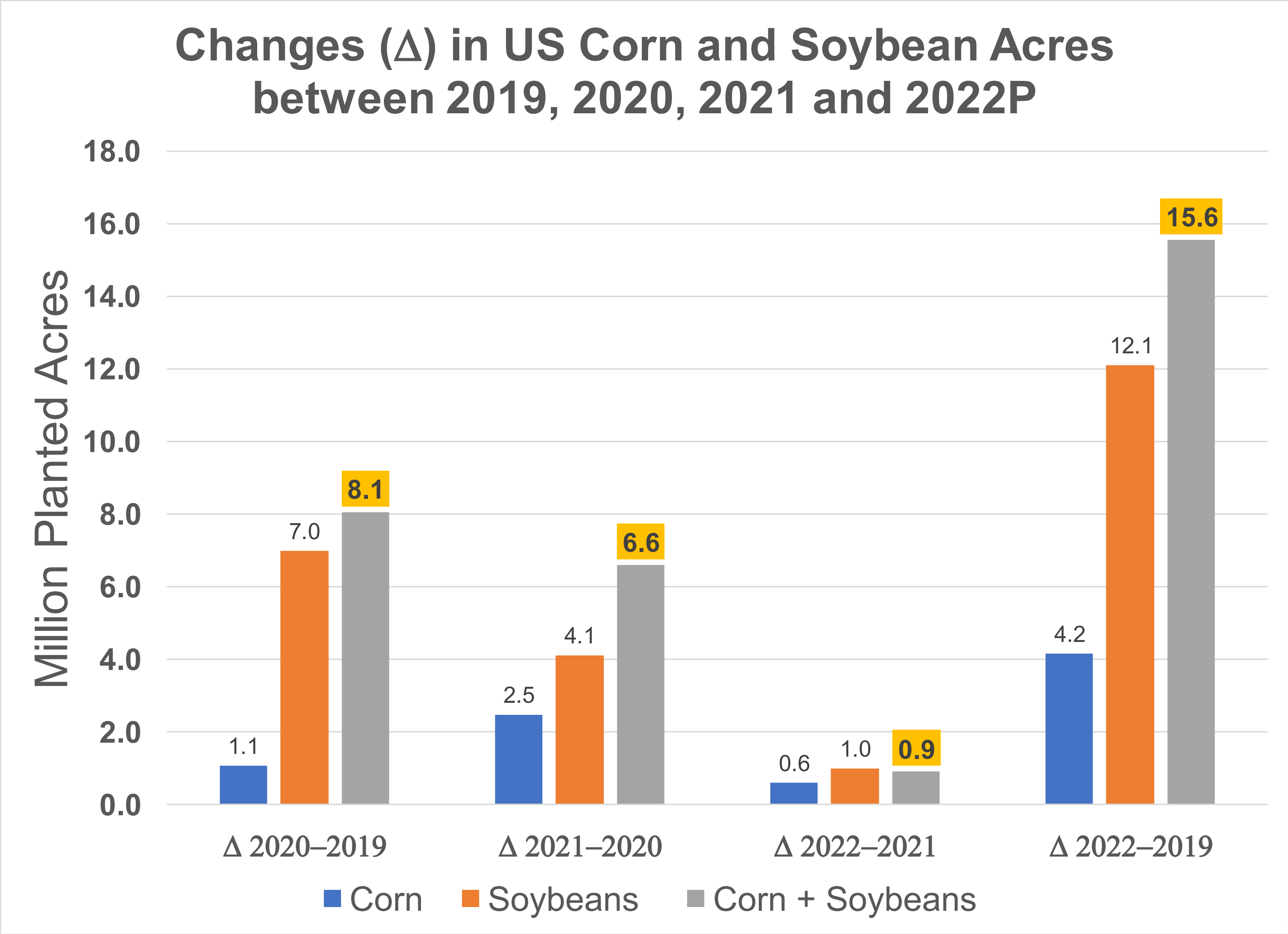
Presentation:
December 2, 2021
Northeast Ag Expo
Camden, Currituck, Chowan, Gates
Pasquotank, Perquimans

Overview

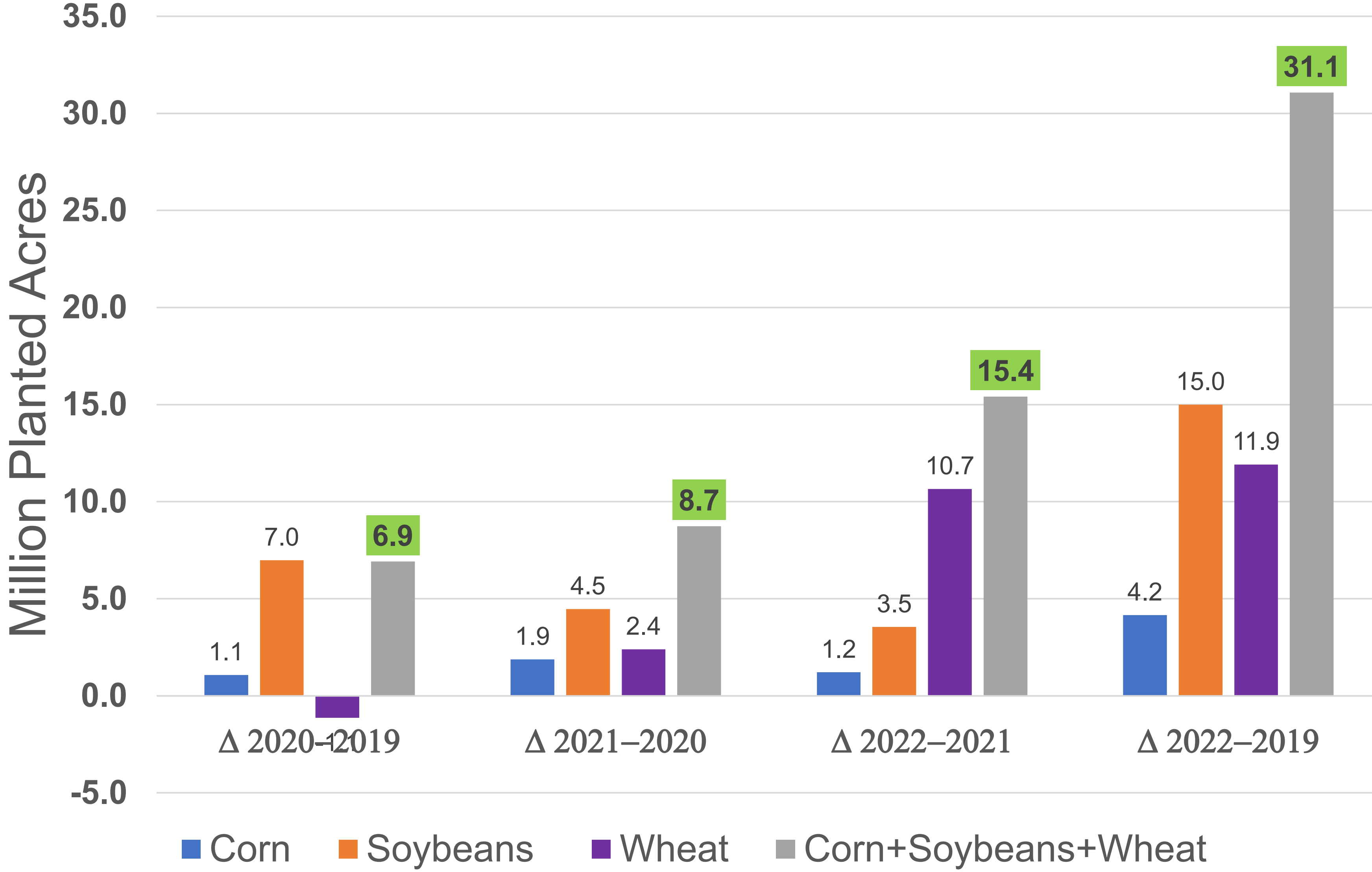
- Some consistent themes in soybean, corn, and wheat markets for 2021
  - ending stocks below 5-year averages reflecting strong demand outstripping supply
- Moving forward for soybean, corn, and wheat markets to replenish stocks (with differing degrees) there must be:
  - increase acreage (with at least trend yields)
  - Rationing of demand
  - both of which point to higher prices
- Projections of what new crop acreage needs to be to replenish to previous 5-year average ending stocks
  - potentially record acreage needed in 2022

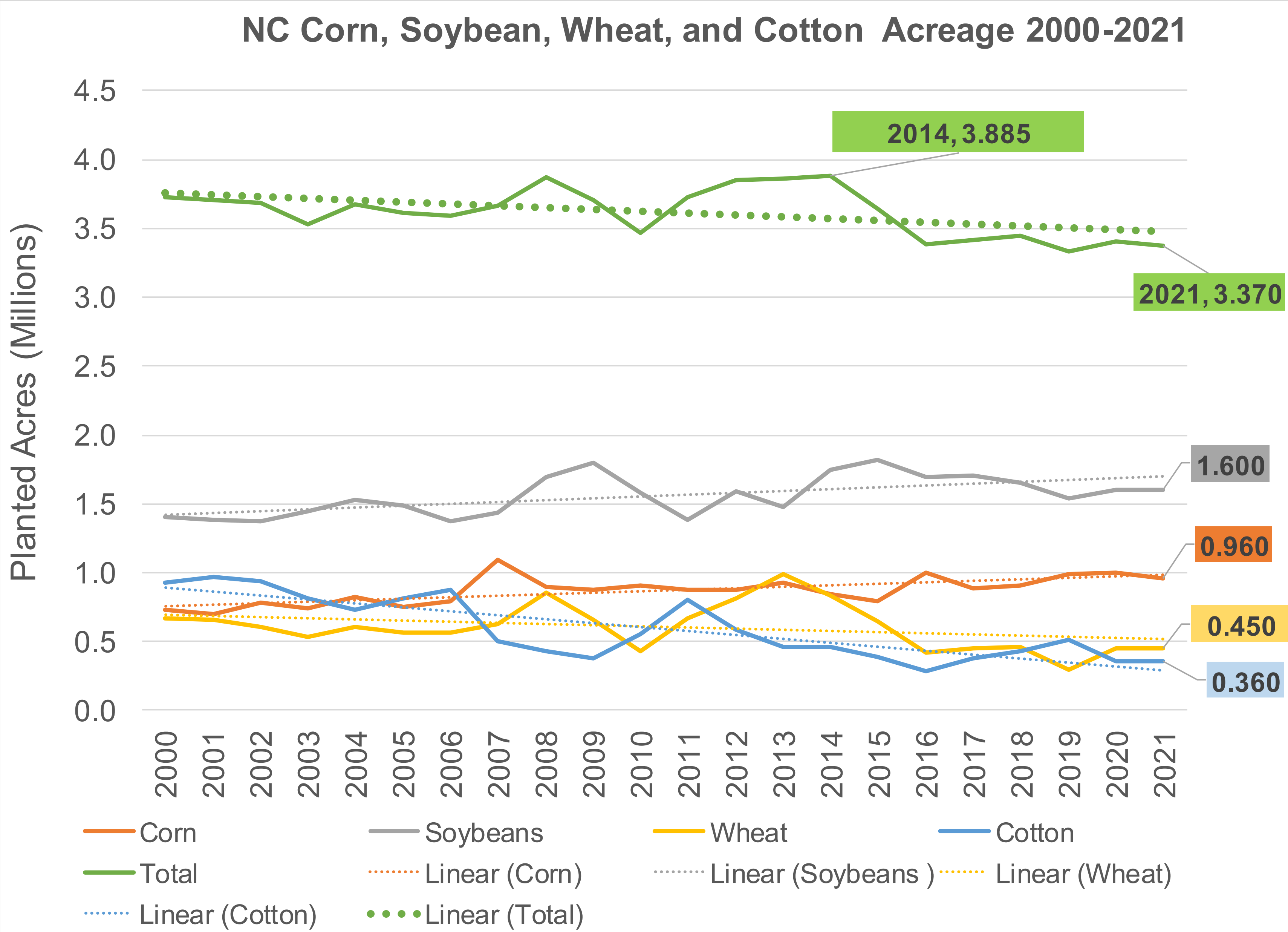
US Corn, Soybean, Wheat, and Cotton Acreage 2000-2021




Changes (Δ) in US Corn and Soybean Acres
between 2019, 2020, 2021 and 2022P
Million Planted Acres
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.1
7.0
8.1
2.5
4.1
6.6
0.6
1.0
0.9
4.2
12.1
15.6
Δ 2020–2019
Δ 2021–2020
Δ 2022–2021
Δ 2022–2019
Corn
Soybeans
Corn + Soybeans

Changes (Δ) in US Corn, Soybean and Wheat Acres between 2019, 2020, 2021 and 2022P





NC Corn, Soybean, Wheat, and Cotton Acreage 2000-2021
Planted Acres (Millions)
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2014, 3.885
2021, 3.370
1.600
0.960
0.450
0.360
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Corn
Soybeans
Wheat
Cotton
Total
Linear (Corn)
Linear (Soybeans)
Linear (Wheat)
Linear (Cotton)
Linear (Total)

NC Planted Row Crop Acres

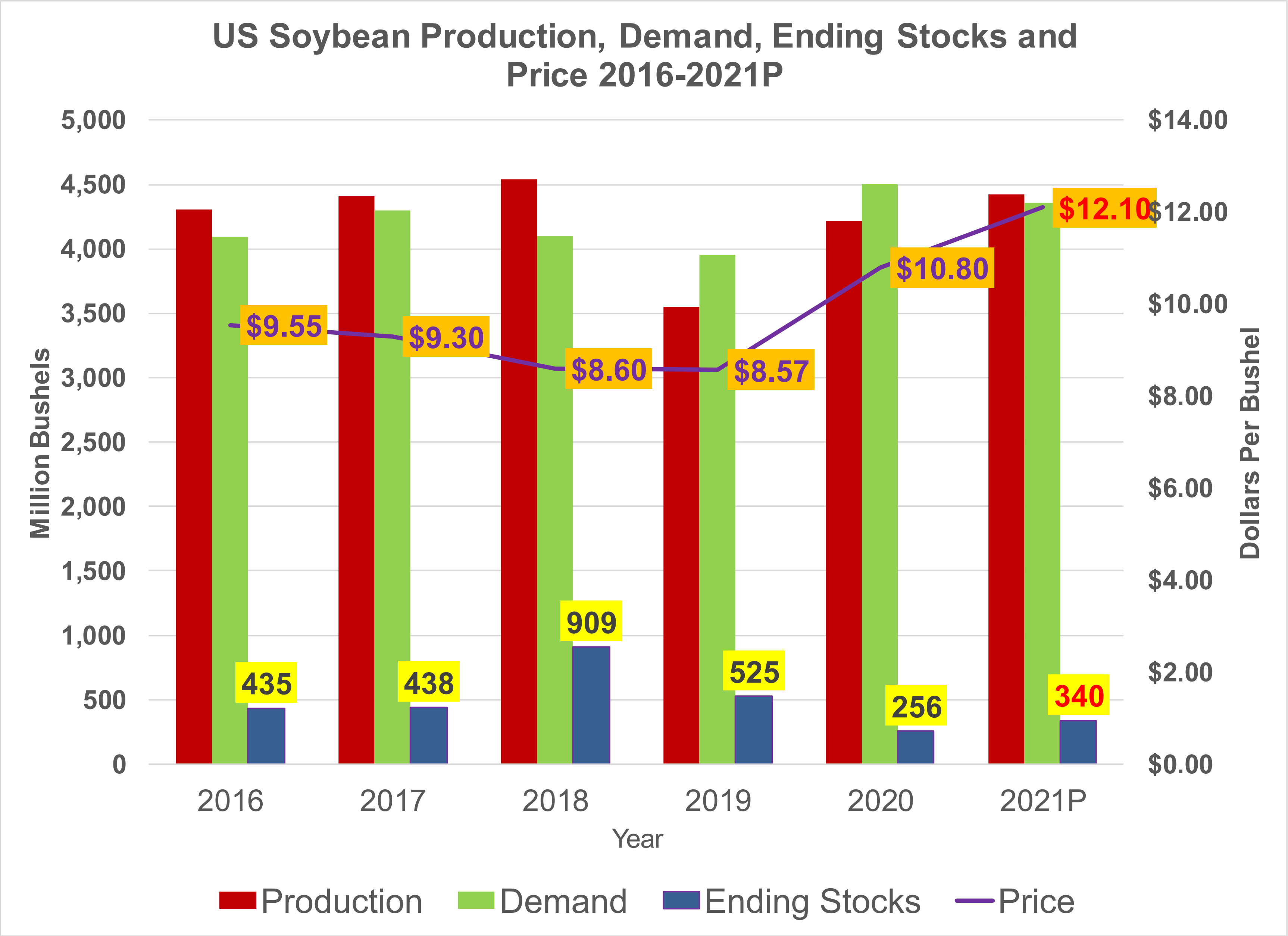
2021 vs 2014 (previous 20 year record)

Year	Corn	Soybeans	Wheat	Cotton	Total
2021	960,000	1,600,000	450,000	360,000	3,370,000
2014	840,000	1,750,000	830,000	465,000	3,885,000
Δ	120,000	-150,000	-380,000	-105,000	-515,000
%	14%	-9%	-46%	-23%	-13%

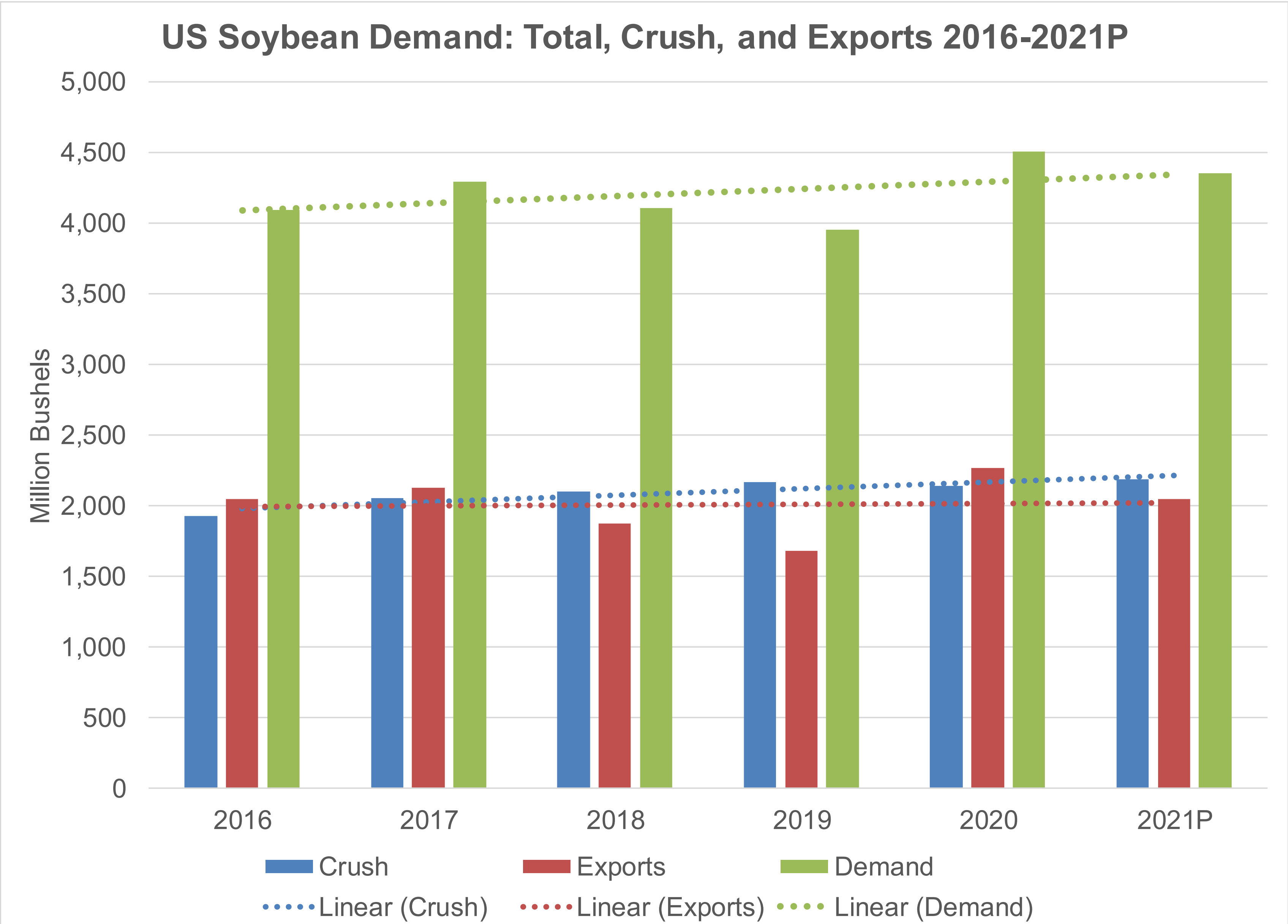
USDA SUPPLY/DEMAND BALANCE SHEET FOR SOYBEANS

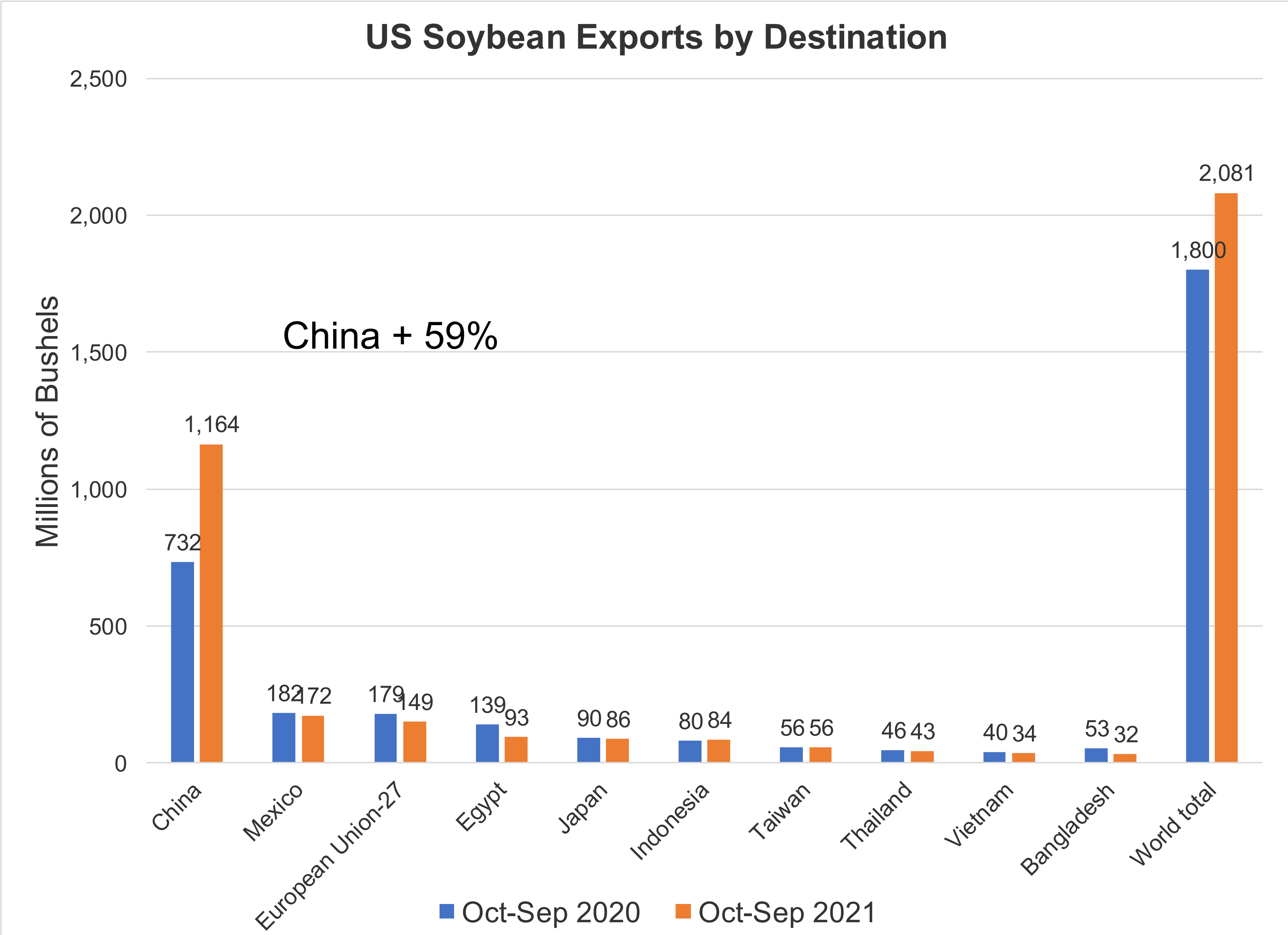
	2019/20	2020/21 Est	2021/22 Proj	%Δ
	Millions of Acres			
Acres Planted	76.1	83.4	87.2	4.6%
Acres Harvested	74.9	82.6	86.4	4.6%
Bu./Harvested Acre	47.4	51.0	51.2	0.4%
	Millions of Bushels			
Beginning Stocks	909	525	256	-51.2%
Production	3,552	4,216	4,425	5.0%
Total Supply	**4,476**	**4,761**	**4,696**	**-1.4%**
Use:				
Crushing	2,165	2,141	2,190	2.3%
Exports	1,682	2,265	2,050	-9.5%
Seed & Residuals	105	98	117	19.4%
Total Use (Demand)	**3,952**	**4,505**	**4,356**	**-3.3%**
Ending Stocks	525	256	340	32.8%
Ending Stocks, % of Use	13.3%	5.7%	7.8%	37.4%
U.S. Season Average Farm Price, $/ Bu.	$8.57	$10.80	$12.10	12.0%

Source: WASDE, USDA, Nov 2021


US Soybean Production, Demand, Ending Stocks and Price 2016-2021P
Million Bushels
Dollars Per Bushel
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
$14.00
$12.00
$10.00
$8.00
$6.00
$4.00
$2.00
$0.00
$9.55
$9.30
$8.60
$8.57
$10.80
$12.10
435
438
909
525
256
340
2016
2017
2018
2019
2020
2021P
Year
Production
Demand
Ending Stocks
Price

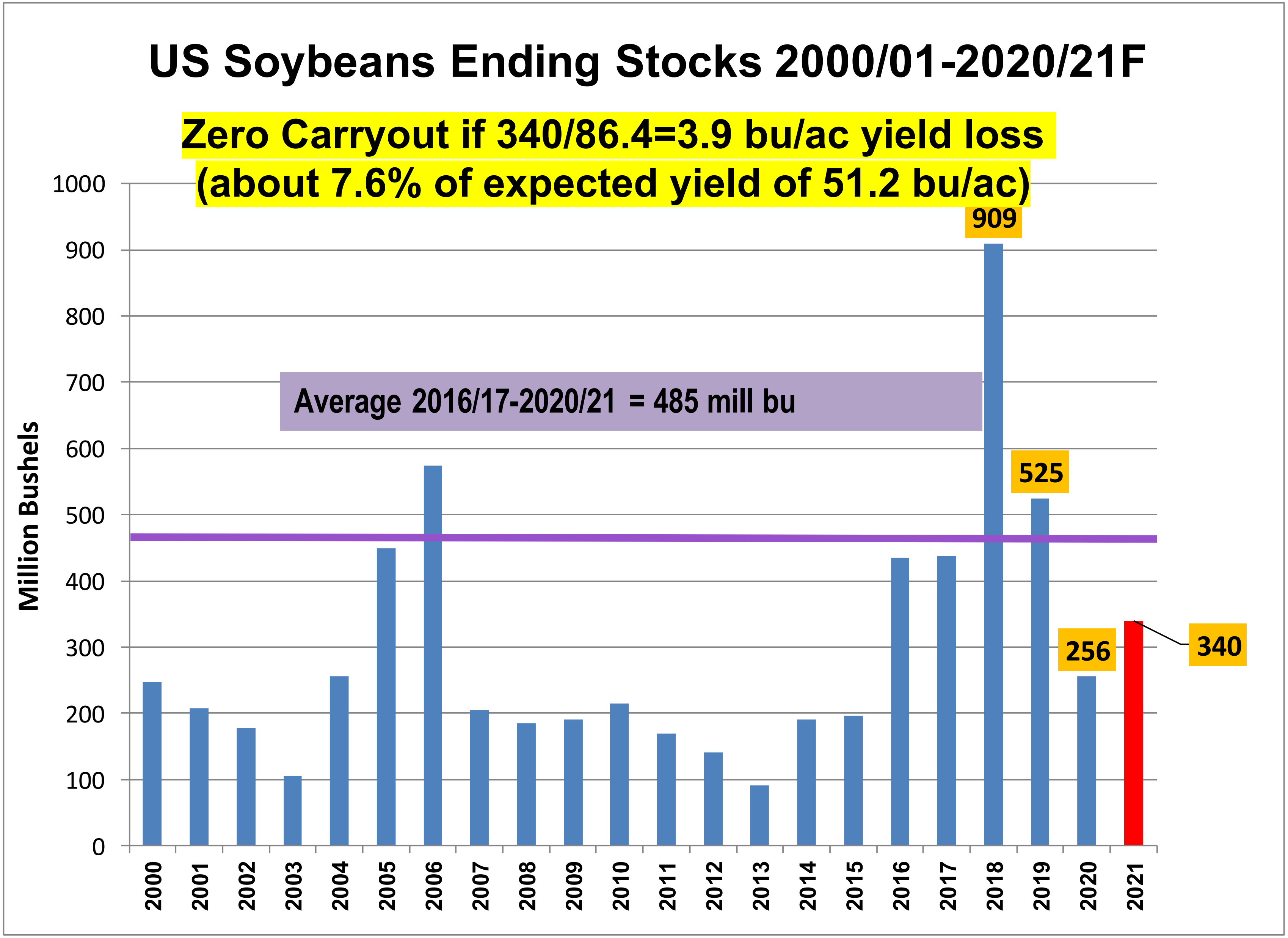
NC STATE UNIVERSITY | 125 YEARS

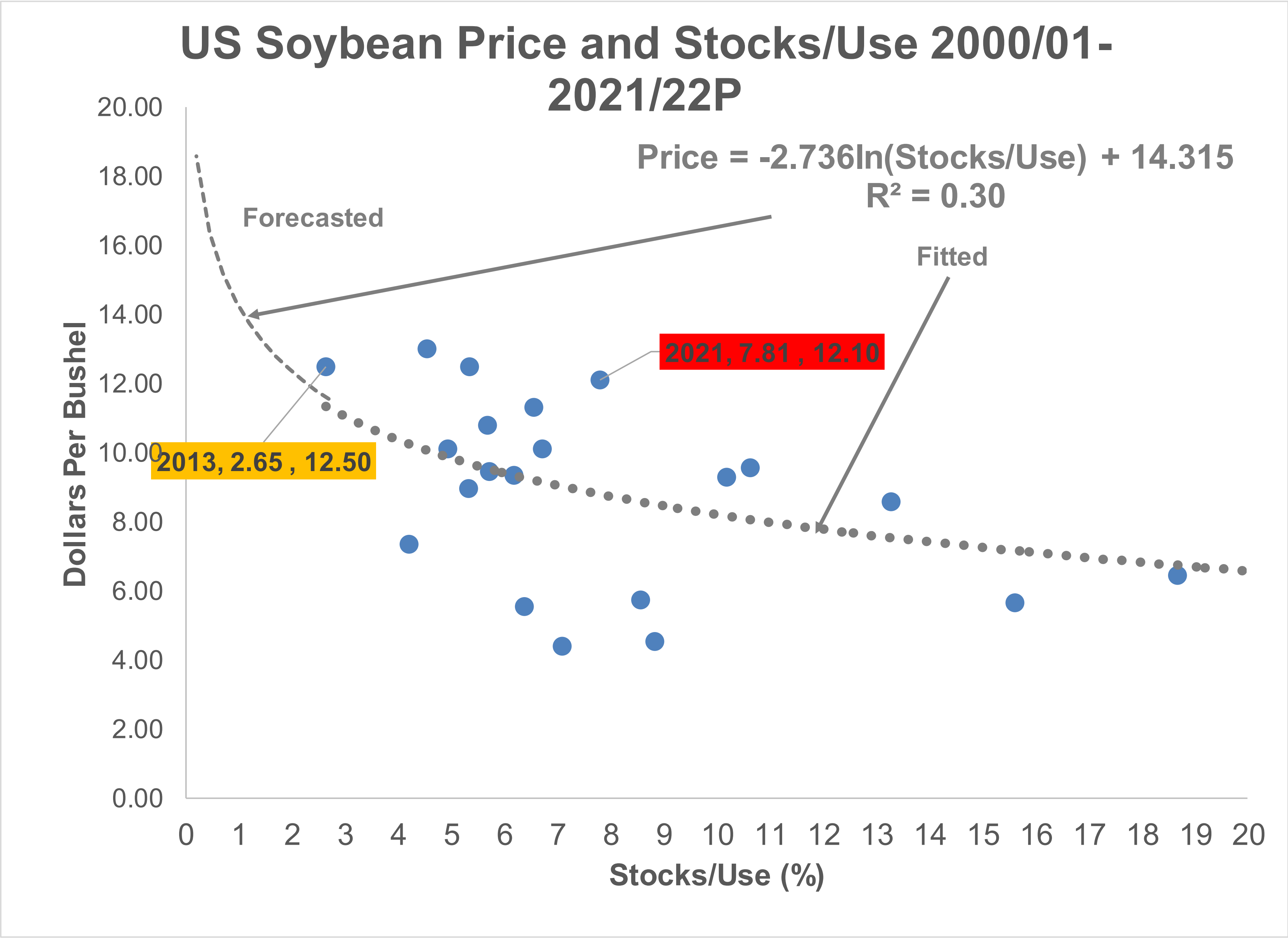




USDA, Economic Research Service

NC STATE UNIVERSITY | 125 YEARS

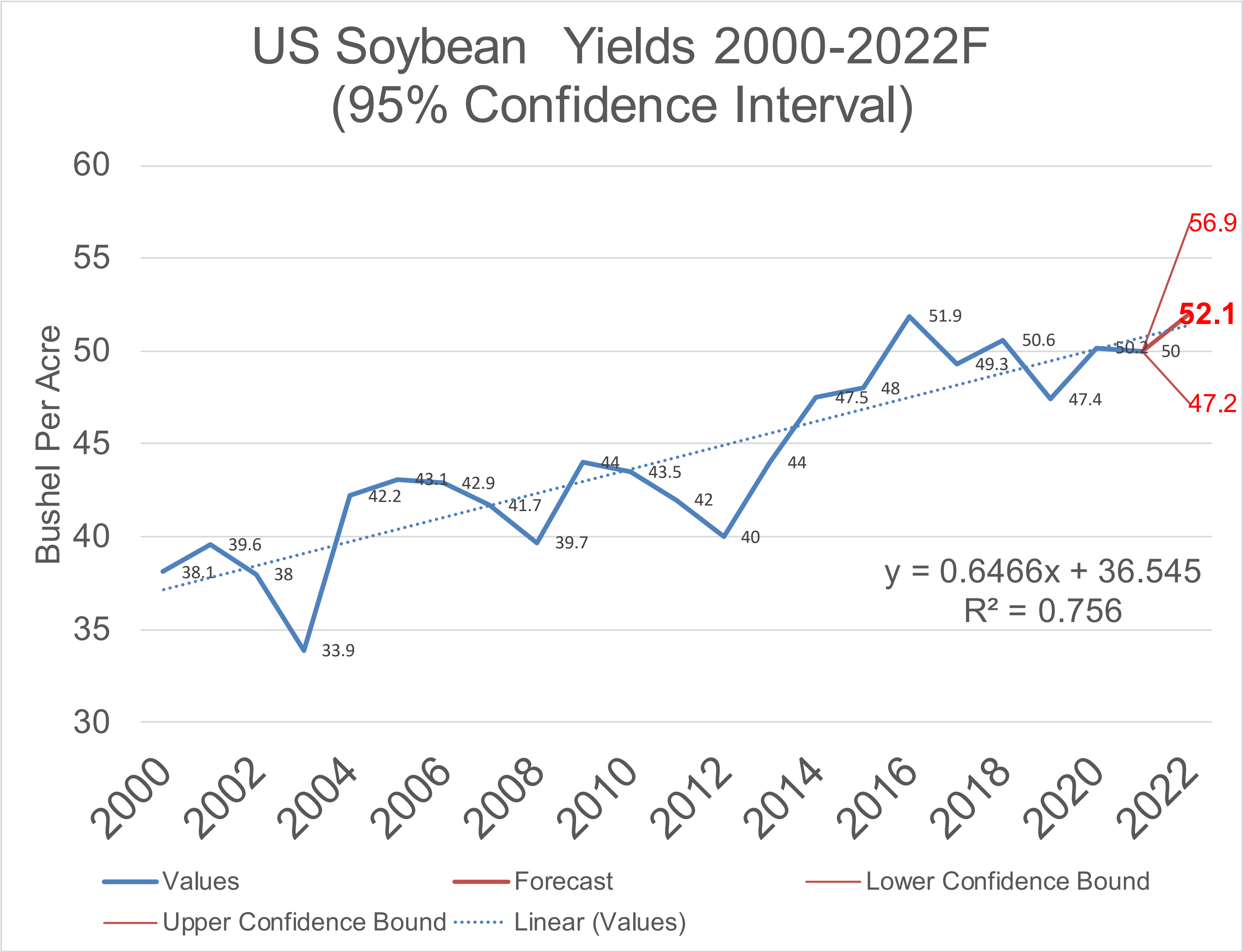



US Soybean Price and Stocks/Use 2000/01-2021/22P
Price = -2.736ln(Stocks/Use) + 14.315
R² = 0.30
Forecasted
Fitted
2021, 7.81 , 12.10
2013, 2.65 , 12.50
Dollars Per Bushel
Stocks/Use (%)
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

S-NOV 2022

Rally on Prospective Planting Acres
$13.10-$11.00 =$2.10 (19%)

Sideways with a downward trend between $12.20 and $12.60



US Soybean Yields 2000-2022F
(95% Confidence Interval)
Bushel Per Acre
60
55
50
45
40
35
30
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
38.1
39.6
38
33.9
42.2
43.1
42.9
41.7
39.7
44
43.5
42
40
44
47.5
48
51.9
49.3
50.6
47.4
50.2
50
56.9
52.1
47.2
y = 0.6466x + 36.545
R² = 0.756
Values
Forecast
Lower Confidence Bound
Upper Confidence Bound
Linear (Values)

2022 Soybean Acres Needed w/ Demand Constant at 2021 Levels to Replenish Ending Stocks to Previous 5-year Avg.

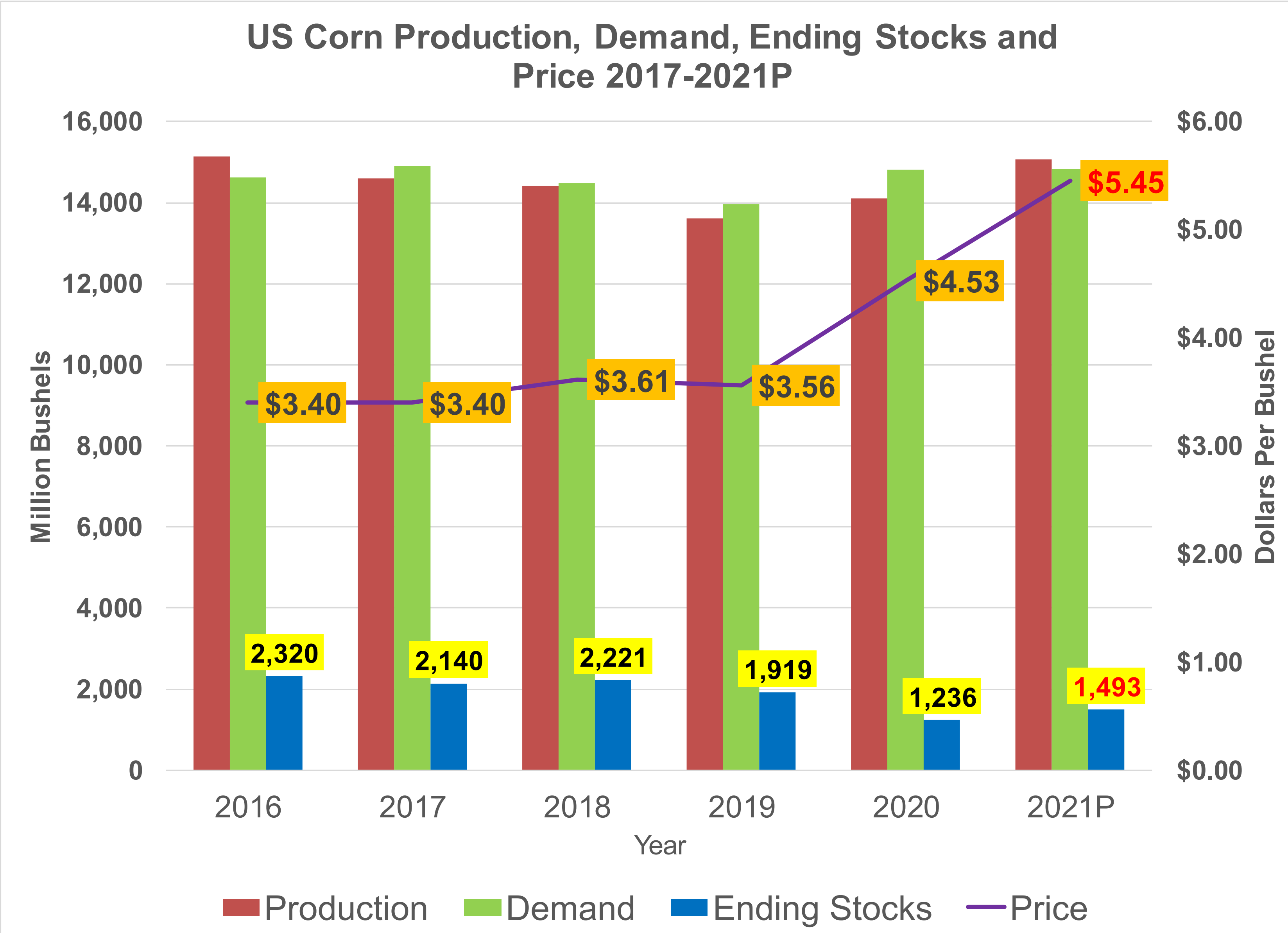
Soybeans	WASDE	Piggott Projections	
	2021/22 Proj. October	2022/23 Proj.	Difference
		Trend Yield	
	Mil. Acres	Mil Acres	Mil Acres
Area Planted	87.2	87.5	0.3
Area Harvested	86.4	86.7	
	Bu/Ac	Bu/Ac	Bu/Ac
Yield per Harvested Acre	51.2	52.1	0.9
	Mil Bu.	Mil Bu.	Mil Bu.
Beginning Stocks	256	340	84
Production	4,425	4,516	91
Imports	15	15	0
Supply, Total	**4,696**	**4,841**	**145**
Demand			
Crush	2,190	2,190	0
Seed & Residuual	117	117	0
Exports	2,050	2,050	0
Demand, Total	**4,356**	**4,356**	**0**
Ending Stocks (ES)	**340**	**485**	**145**
Stocks/Use	7.8%	11.1%	0
Avg Farm Price ($/bu)	$12.10	Below $12.35 (↓)	?
Previous 5-year Avg. ES	**485**		

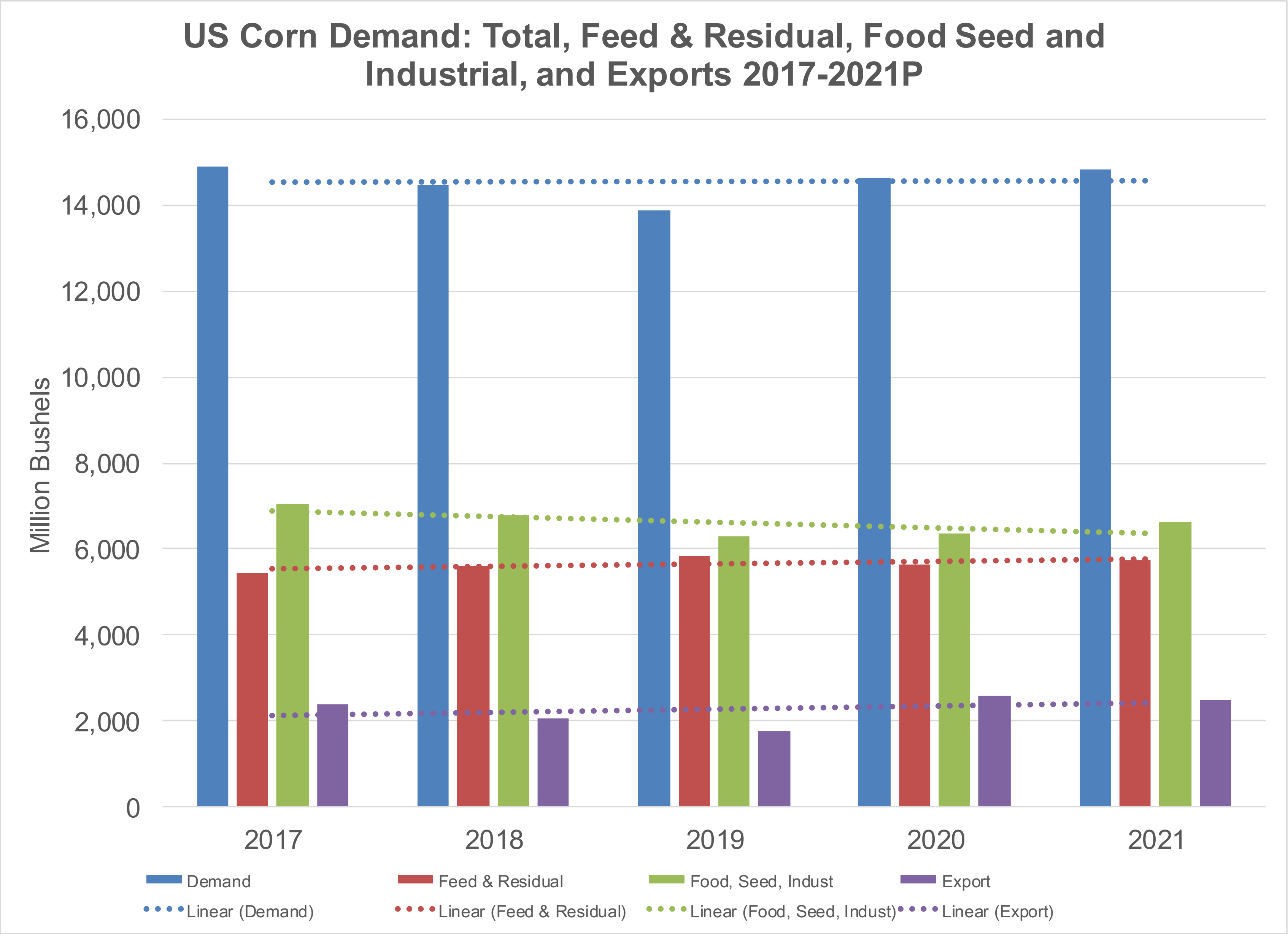
USDA SUPPLY/DEMAND BALANCE SHEET FOR CORN

	2019/2020	2020/21 Est	2021/22 Proj	%Δ
		Million Acres		
Acres Planted	89.7	90.7	93.3	2.9%
Acres Harvested	81.3	82.3	85.1	3.4%
Bu./Harvested Acre	167.5	171.4	177.0	3.3%
		Million Bushels		
Beginning Stocks	2,221	1,919	1,236	-35.6%
Production	13,620	14,111	15,062	6.7%
Total Supply	15,883	16,055	16,323	1.7%
Use:				
Feed and Residual	5,903	5,601	5,650	0.9%
Ethanol for fuel	4,852	5,028	5,250	4.4%
Exports	1,778	2,753	2,500	-9.2%
Total Use (Demand)	13,963	14,819	14,830	0.1%
Ending Stocks	1,919	1,236	1,493	20.8%
Ending Stocks, % of Use	13.7	8.3	10.1	20.7%
U.S. Season Avg. Farm Price, $/ Bu.	$3.56	$4.53	$5.45	20.3%

Source: USDA, WASDE Nov, 2021

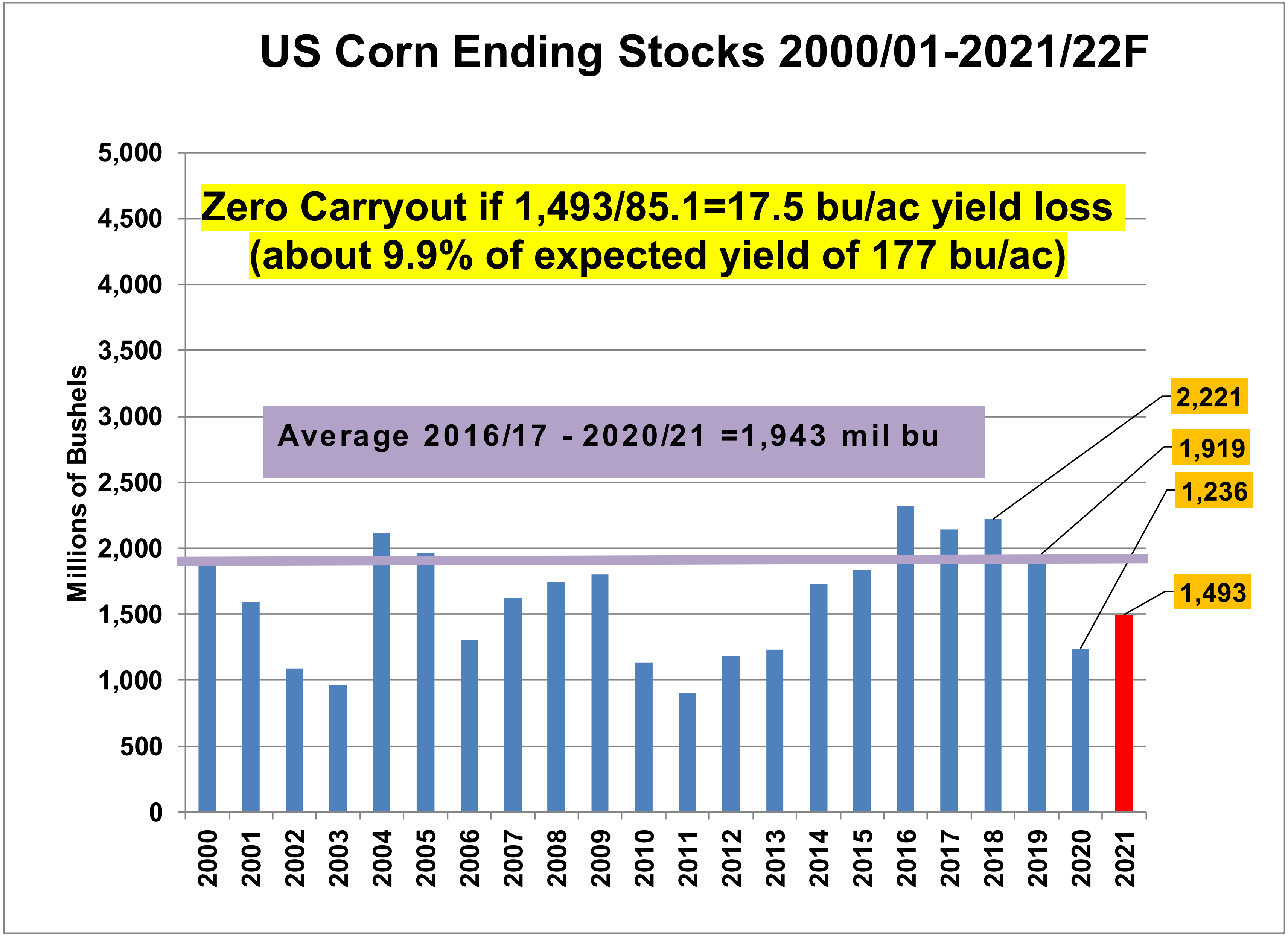
NC STATE UNIVERSITY | 125 YEARS

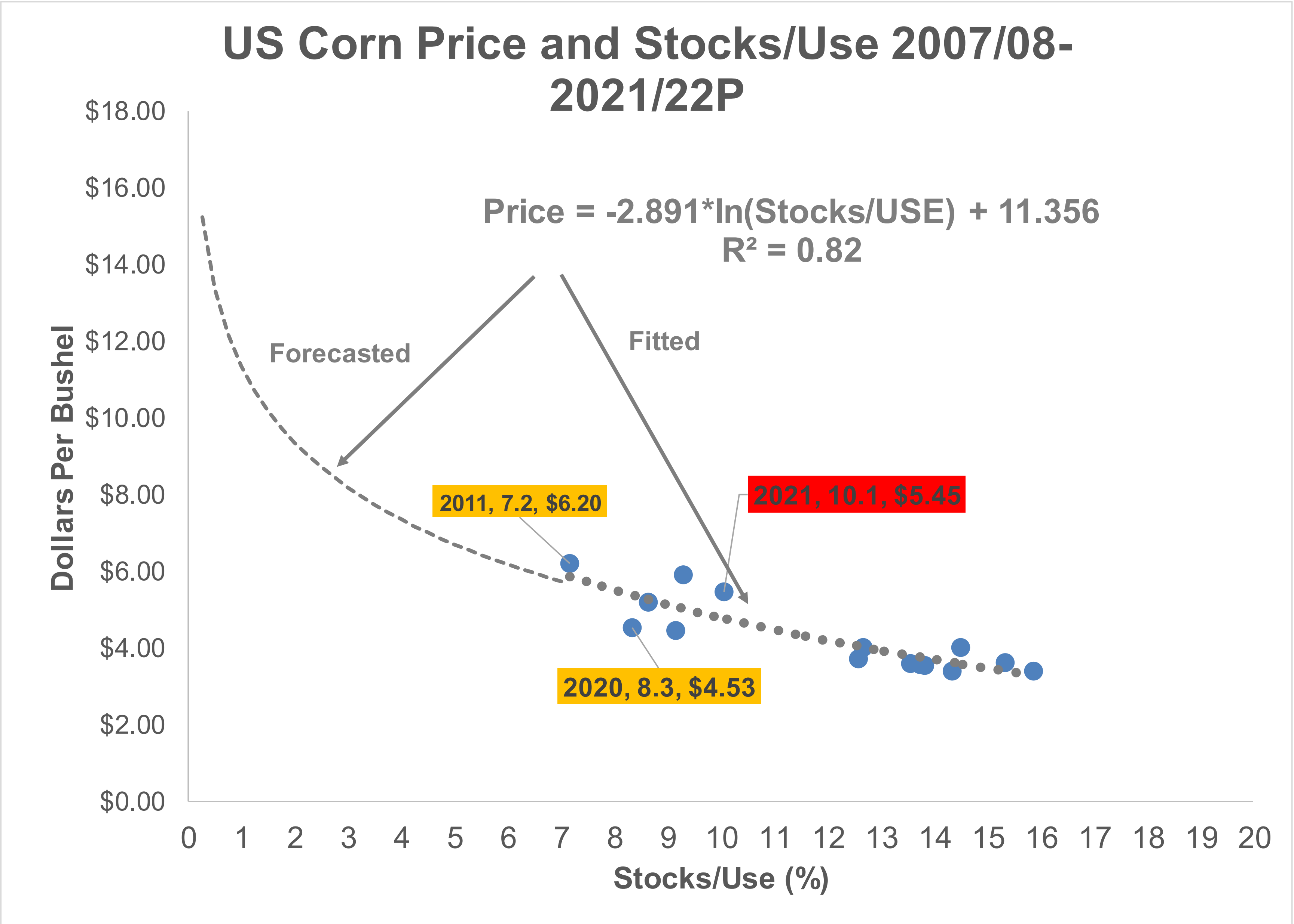




US Corn Demand: Total, Feed & Residual, Food Seed and Industrial, and Exports 2017-2021P
Million Bushels
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
2017
2018
2019
2020
2021
Demand
Feed & Residual
Food, Seed, Indust
Export
Linear (Demand)
Linear (Feed & Residual)
Linear (Food, Seed, Indust)
Linear (Export)

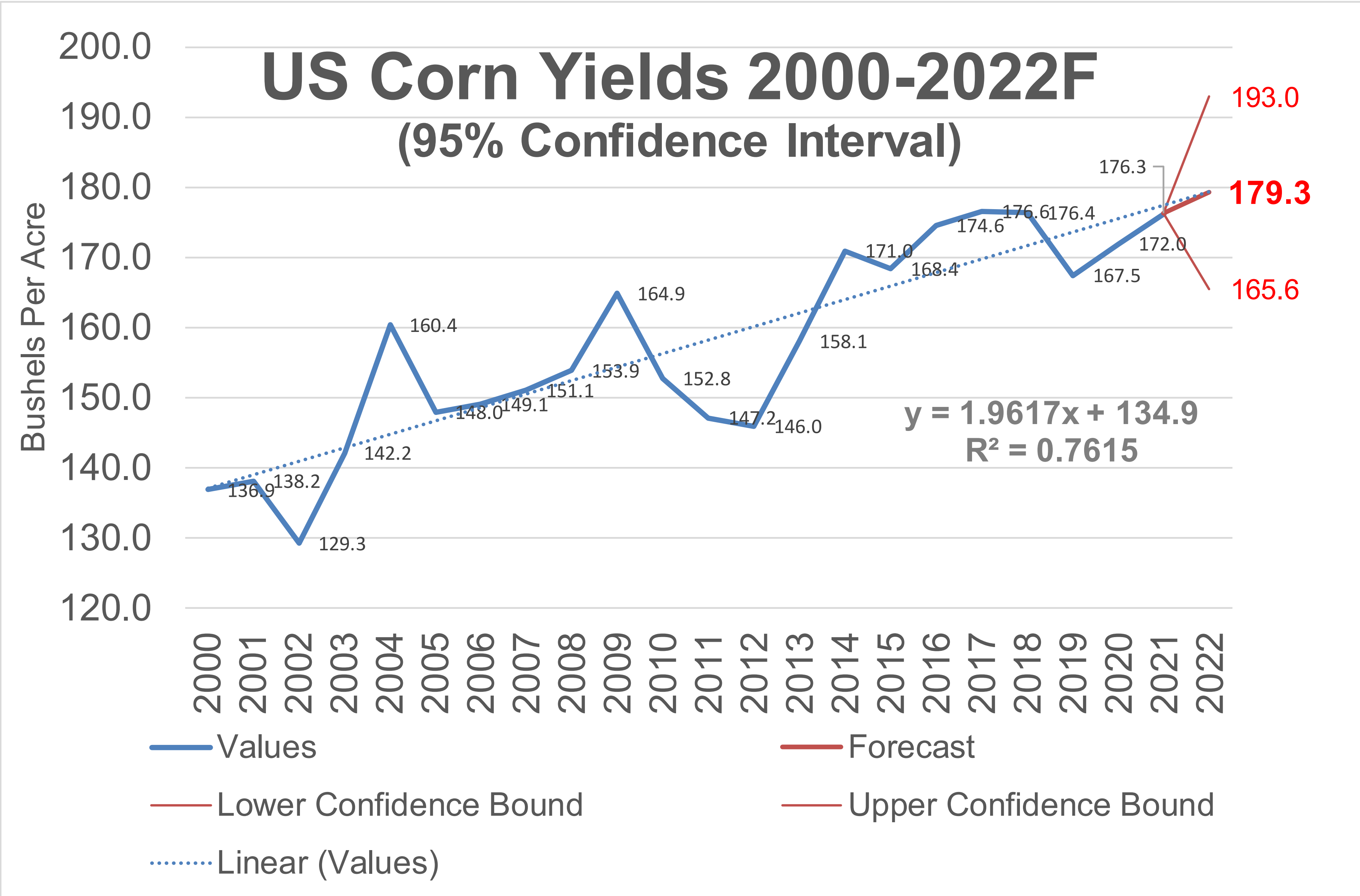

US Corn Exports by Destination
Millions of Bushels
3,000
2,500
2,000
1,500
1,000
500
0
China +564.8%
124
821
571
617
395
441
210
142
114
130
67
69
31
68
46
47
29
31
34
30
1,847
2,696
China
Mexico
Japan
Colombia
South Korea
Canada
Taiwan
Guatemala
Honduras
Costa Rica
World total
Oct-Sep 2020
Oct-Sep 2021


US Corn Ending Stocks 2000/01-2021/22F
Zero Carryout if 1,493/85.1=17.5 bu/ac yield loss
(about 9.9% of expected yield of 177 bu/ac)
Average 2016/17 - 2020/21 =1,943 mil bu
Millions of Bushels
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2,221
1,919
1,236
1,493
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021


US Corn Price and Stocks/Use 2007/08-2021/22P
Price = -2.891*ln(Stocks/USE) + 11.356
R² = 0.82
Forecasted
Fitted
2011, 7.2, $6.20
2021, 10.1, $5.45
2020, 8.3, $4.53
Dollars Per Bushel
$18.00
$16.00
$14.00
$12.00
$10.00
$8.00
$6.00
$4.00
$2.00
$0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Stocks/Use (%)

C-DEC 2022

Published on TradingView.com, Dec 02, 2021 06:09 UTC-6
CORN FUTURES (DEC 2022), 1D, CBOT O547'6 H552'6 L546'4 C551'6 +3'2 (+0.59%)
Vol 1.995K
Rally on Prospective Planting Acres $5.30-$4.50 =$0.80 (18%)
Rally on Prospective Planting Acres $5.60-$4.90 =$0.70 (14%)
580'0
570'0
560'0
551'6
540'0
530'0
520'0
510'0
500'0
490'0
480'0
470'0
460'0
450'0
440'0
430'0
420'0
410'0
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
TradingView


US Corn Yields 2000-2022F
(95% Confidence Interval)
Bushels Per Acre
200.0
190.0
180.0
170.0
160.0
150.0
140.0
130.0
120.0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
136.9
138.2
129.3
142.2
160.4
148.0
149.1
151.1
153.9
164.9
152.8
147.2
146.0
158.1
171.0
168.4
174.6
176.6
176.4
167.5
172.0
176.3
193.0
179.3
165.6
y = 1.9617x + 134.9
R² = 0.7615
Values
Forecast
Lower Confidence Bound
Upper Confidence Bound
Linear (Values)

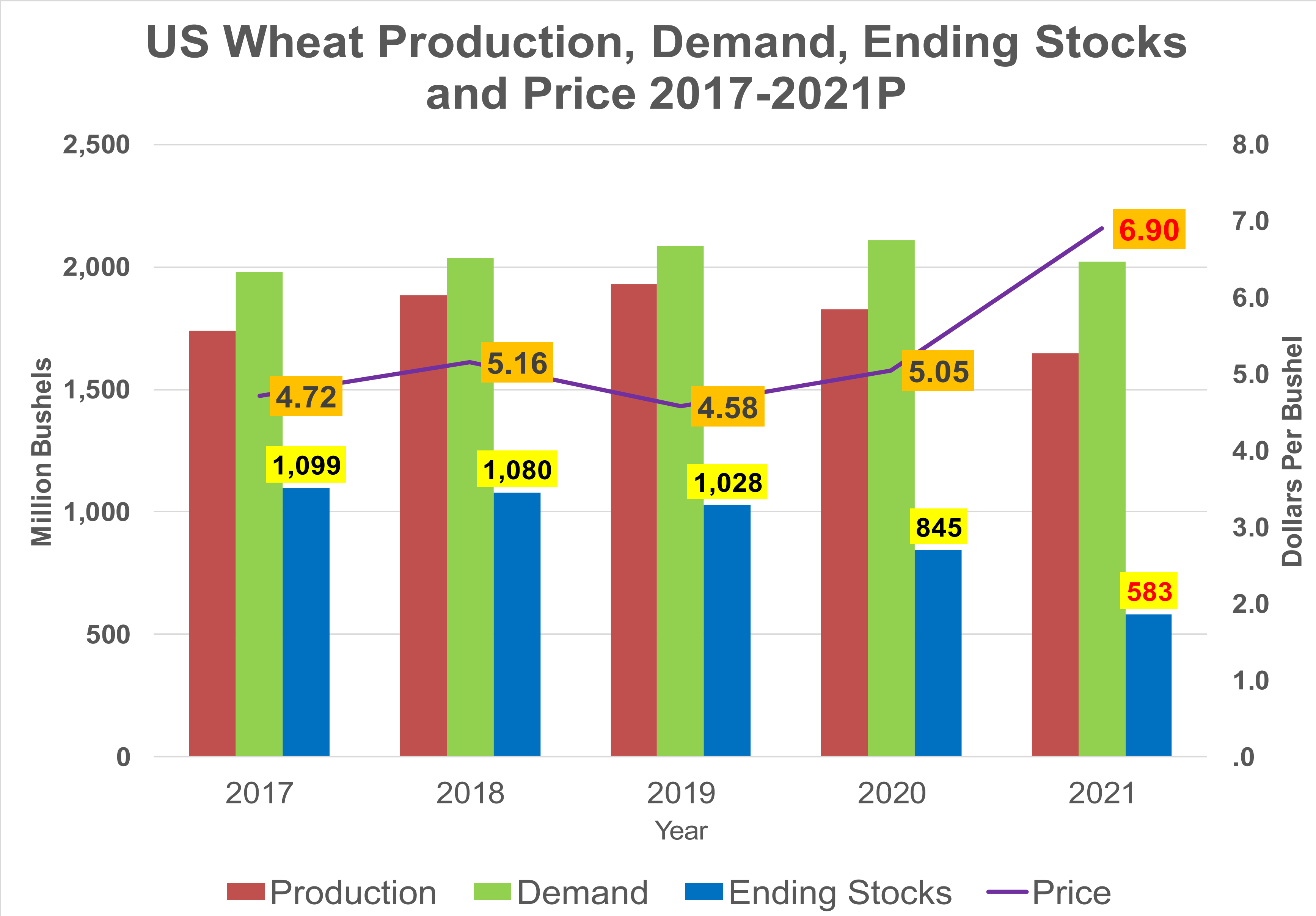
2022 Corn Acres Needed w/ Demand Constant at 2021 Levels to Replenish Ending Stocks to Previous 5-year Avg.

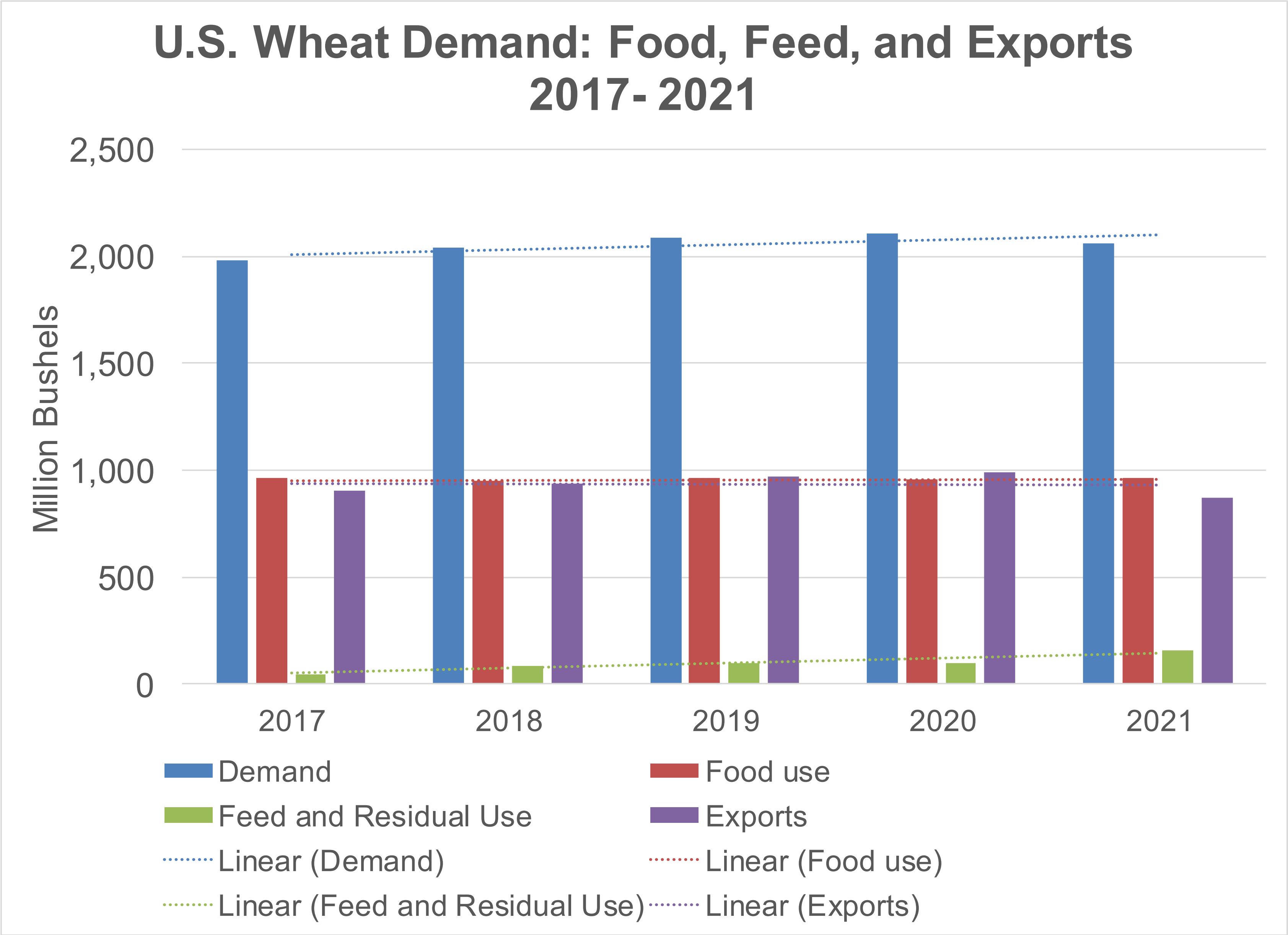
CORN	WASDE	Piggott Projections	
	2021/22 Proj. Jul	2022/23 Proj.	Difference
		Trend Yield	
	Mil. Acres	Mil Acres	Mil Acres
Area Planted	93.3	93.6	0.3
Area Harvested	85.1	85.4	
	Bu/Ac	Bu/Ac	Bu/Ac
Yield per Harvested Acre	177	179.3	2.3
	Mil Bu.	Mil Bu.	Mil Bu.
Beginning Stocks	1,236	1,493	257
Production	15,062	15,305	243
Imports	25	25	0
Supply, Total	**16,232**	**16,773**	**541**
Demand			
Feed and Residual	5,650	5,650	0
Food, Seed, & Industrial	6,680	6,680	0
Exports	2,500	2,500	0
Demand, Total	**14,830**	**14,830**	**0**
Ending Stocks (ES)	**1,493**	**1,943**	**450**
Stocks/Use	10.1%	13.1%	0
Avg Farm Price ($/bu)	$5.45	Below $5.45 (↓)	?
Previous 5-year Avg. ES	**1,943**		

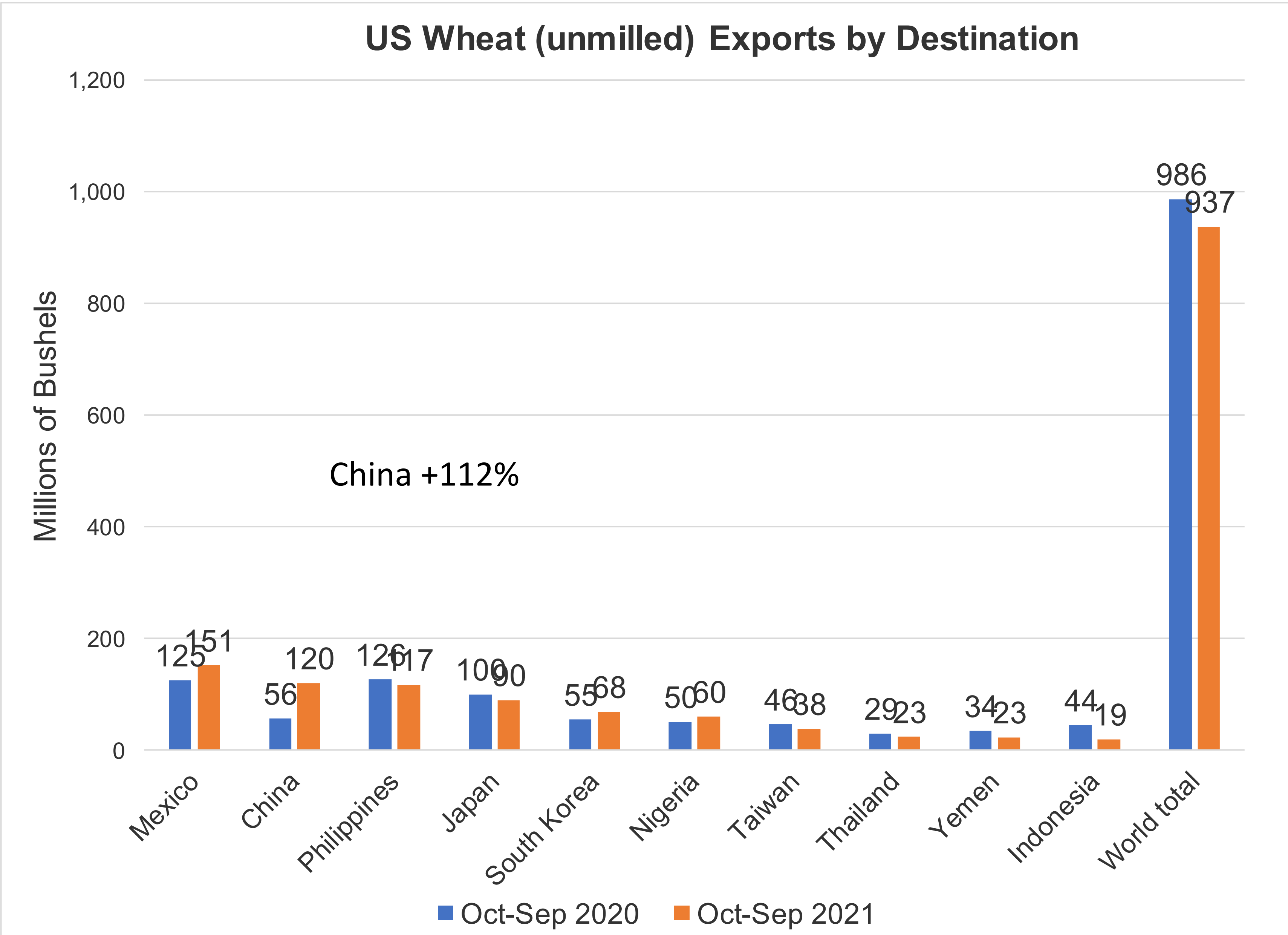
USDA SUPPLY/DEMAND BALANCE SHEET FOR WHEAT

	2019/20	2020/21 Est	2021/22 Proj	%Δ
Acres Planted	45.5	44.5	46.7	4.9%
Acres Harvested	37.4	36.8	37.2	1.1%
Bu./Harvested Acre	51.7	49.7	44.3	-10.9%
		Million Bushels		
Beginning Stocks	1,080	1,028	845	-17.8%
Production	1,932	1,828	1,646	-10.0%
Imports	104	100	115	15.0%
Total Supply	**3,116**	**2,957**	**2,606**	-11.9%
Use:				
Food	962	961	962	0.1%
Seed	60	64	66	3.1%
Feed & Residual	97	95	135	42.1%
Domestic, Total	1,118	1,120	1,163	3.8%
Exports	969	992	860	-13.3%
Total Use (Demand)	**2,087**	**2,111**	**2,023**	-4.2%
Ending Stocks	1,028	845	583	-31.0%
Ending Stocks, % of Use	49.3	40.0	28.8	-28.0%
U.S. Season Aver. Farm Price, $/ Bu.	$4.58	$5.05	$6.90	36.6%

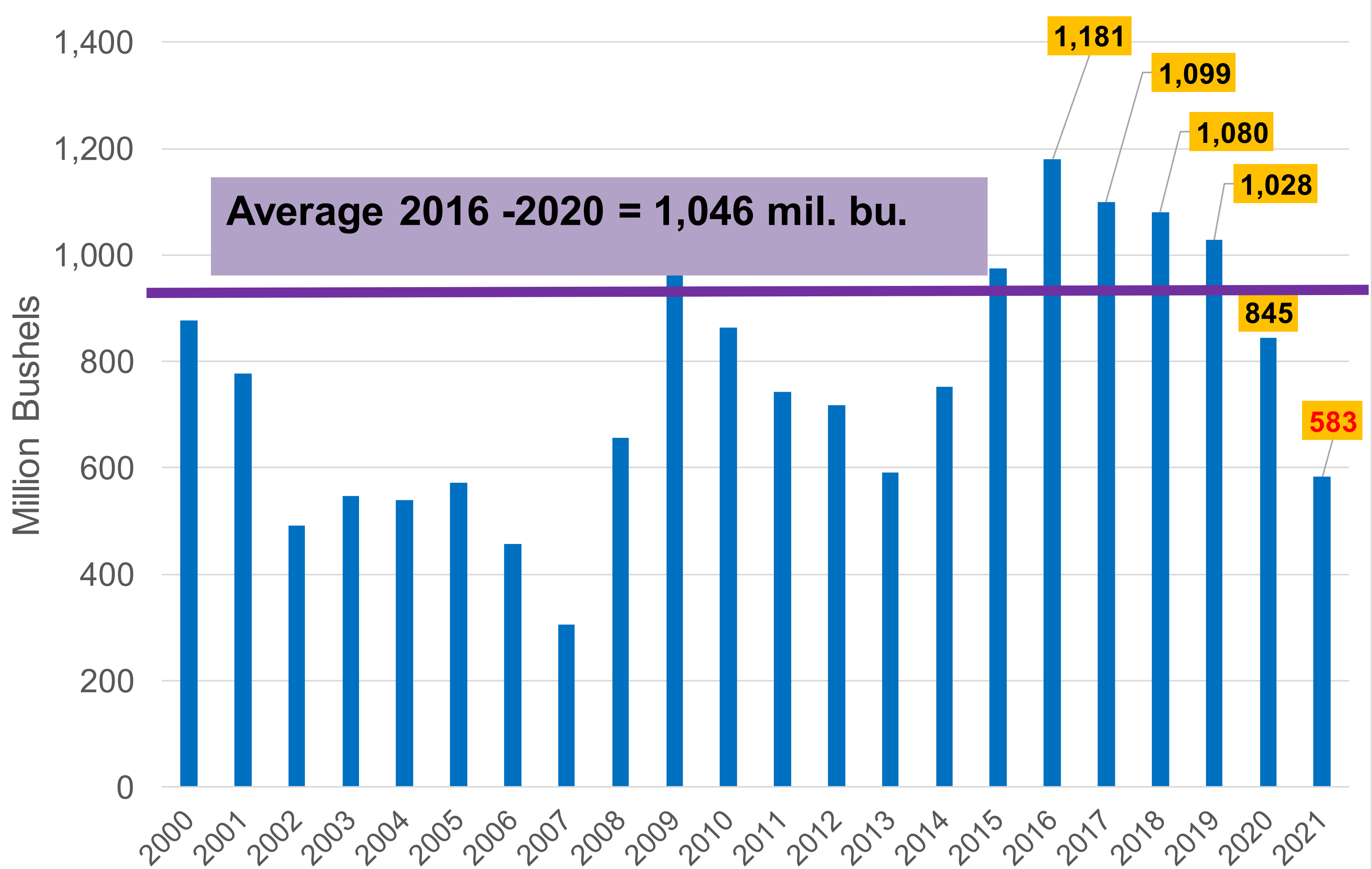
Source: USDA, WASDE November 2021

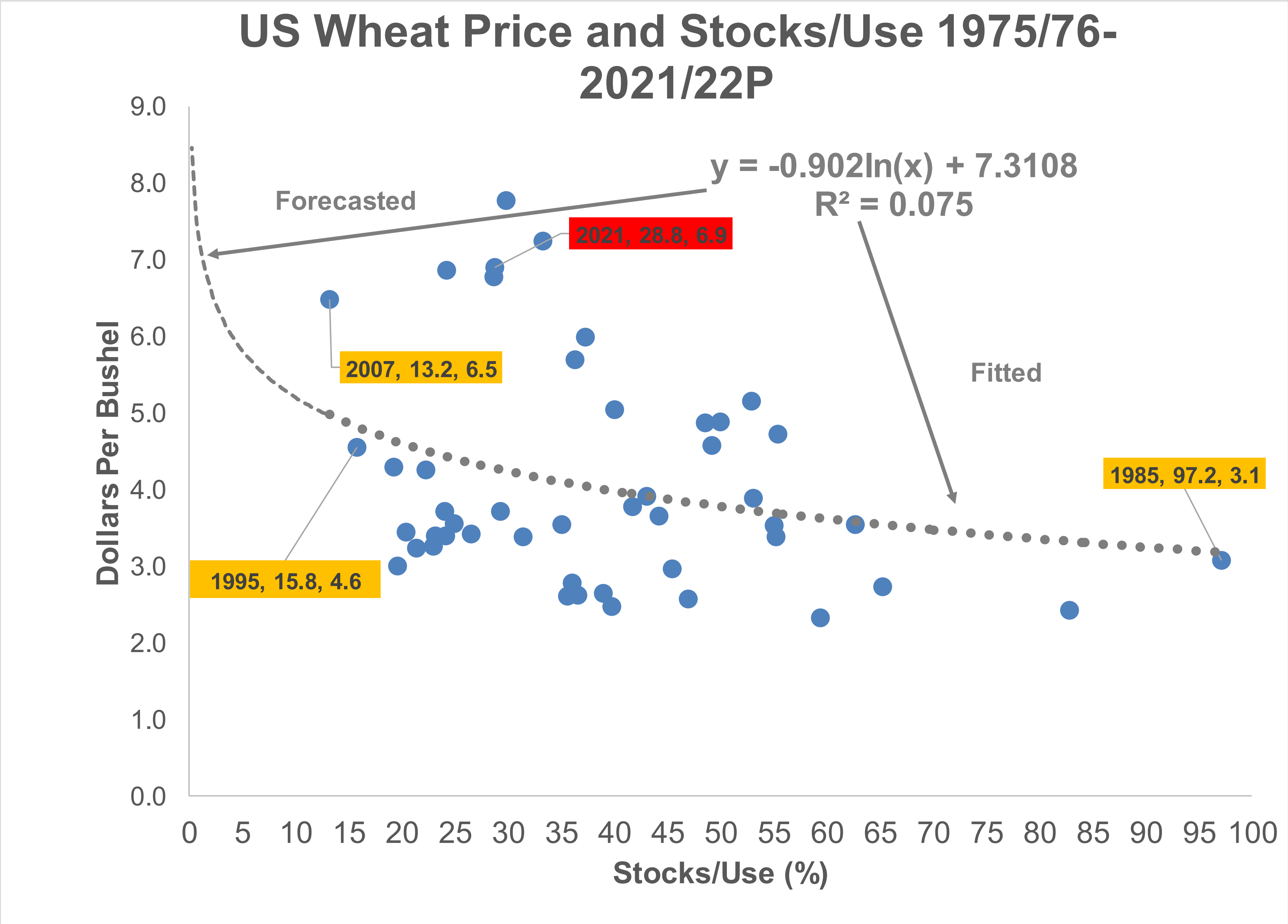

US Wheat Production, Demand, Ending Stocks and Price 2017-2021P
2,500
2,000
1,500
1,000
500
0
Million Bushels
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
.0
Dollars Per Bushel
4.72
5.16
4.58
5.05
6.90
1,099
1,080
1,028
845
583
2017
2018
2019
2020
2021
Year
Production
Demand
Ending Stocks
Price


U.S. Wheat Demand: Food, Feed, and Exports
2017- 2021
Million Bushels
2,500
2,000
1,500
1,000
500
0
2017
2018
2019
2020
2021
Demand
Food use
Feed and Residual Use
Exports
Linear (Demand)
Linear (Food use)
Linear (Feed and Residual Use)
Linear (Exports)


US Wheat (unmilled) Exports by Destination
Millions of Bushels
1,200
1,000
800
600
400
200
0
China +112%
125
151
56
120
126
117
100
90
55
68
50
60
46
38
29
23
34
23
44
19
986
937
Mexico
China
Philippines
Japan
South Korea
Nigeria
Taiwan
Thailand
Yemen
Indonesia
World total
Oct-Sep 2020
Oct-Sep 2021

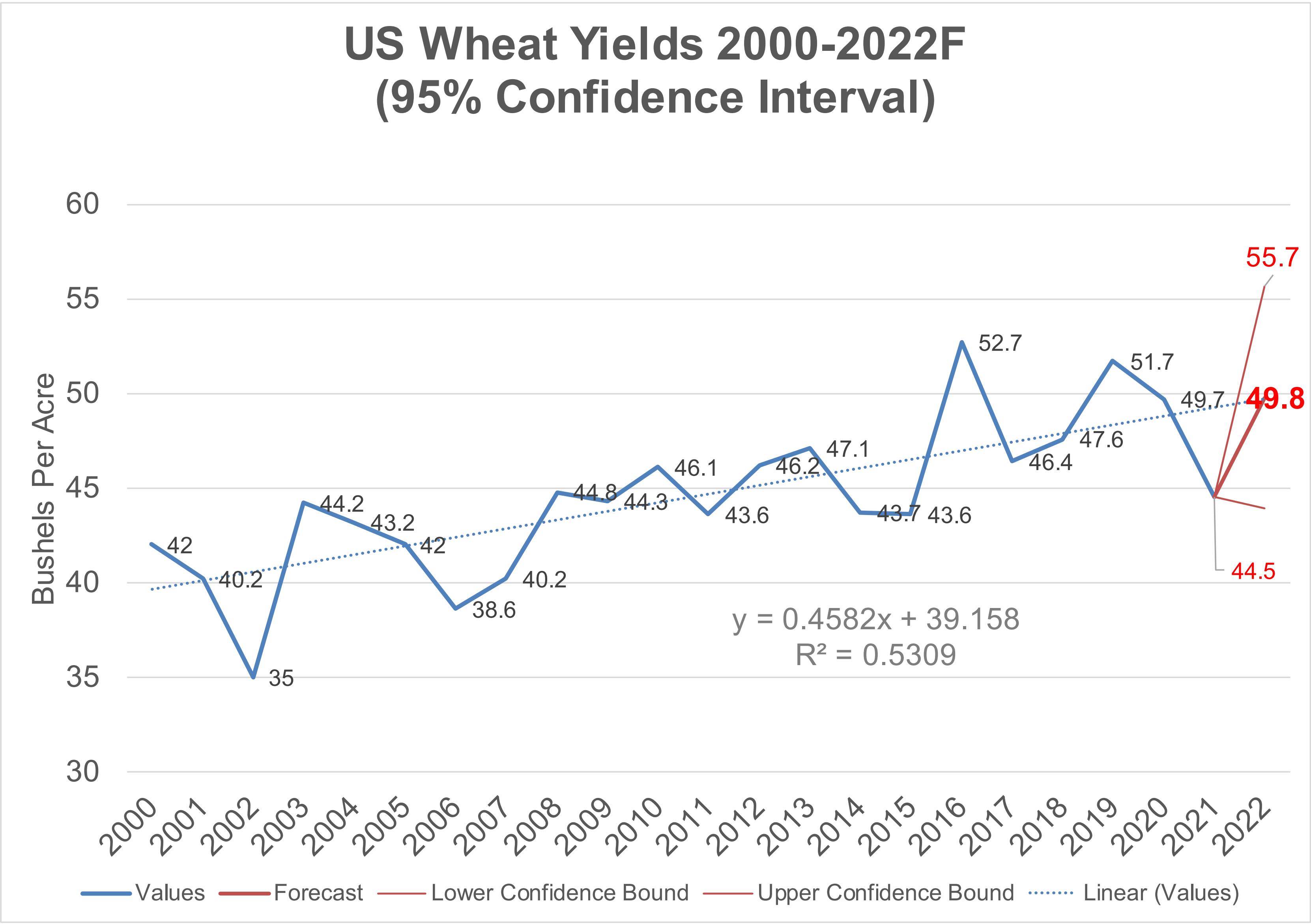
US Wheat Ending Stocks 2000/01-2021/22P




US Wheat Price and Stocks/Use 1975/76-2021/22P
y = -0.902ln(x) + 7.3108
R² = 0.075
Forecasted
Fitted
2021, 28.8, 6.9
2007, 13.2, 6.5
1995, 15.8, 4.6
1985, 97.2, 3.1
Dollars Per Bushel
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100
Stocks/Use (%)

W-JUL 2022


Published on TradingView.com, Dec 02, 2021 06:11 UTC-6
WHEAT FUTURES (JUL 2022), 1D, CBOT O786'4 H802'6 L786'4 C799'2 +12'6 (+1.62%)
Vol 1.443K
Recent upside breakout to $8.50
(+)$2.75=$8.50-$6.75
Rally after Prospective Planting Acres
$7.10-$6.00 =$1.10 (18%)
875'0
850'0
825'0
799'2
775'0
750'0
725'0
700'0
675'0
650'0
625'0
600'0
575'0
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
TradingView

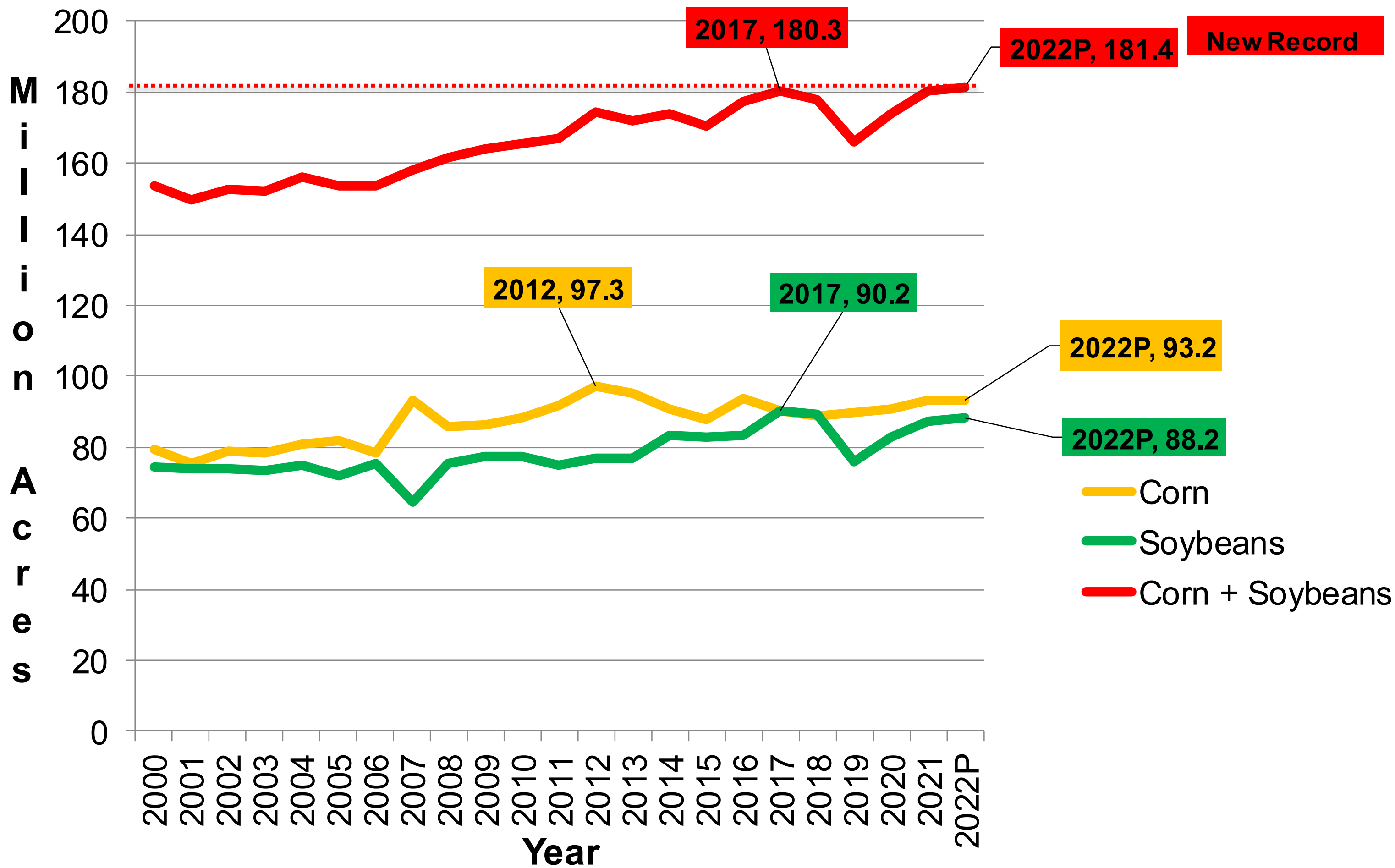


US Wheat Yields 2000-2022F
(95% Confidence Interval)
Bushels Per Acre
60
55
50
45
40
35
30
42
40.2
35
44.2
43.2
42
38.6
40.2
44.8
44.3
46.1
43.6
46.2
47.1
43.7
43.6
52.7
46.4
47.6
51.7
49.7
49.8
55.7
44.5
y = 0.4582x + 39.158
R² = 0.5309
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Values
Forecast
Lower Confidence Bound
Upper Confidence Bound
Linear (Values)

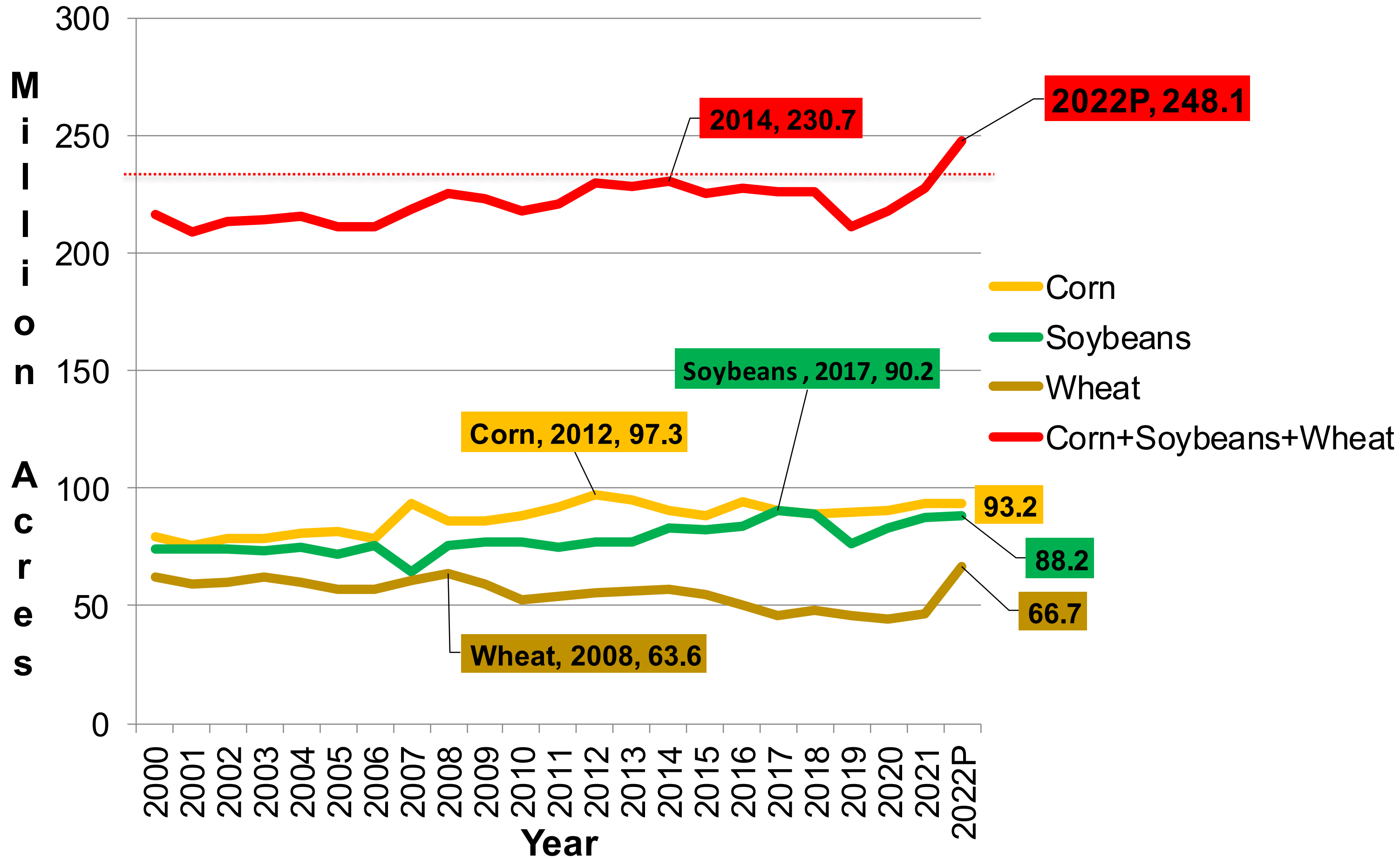
NC STATE UNIVERSITY 125 YEARS

WHEAT	WASDE	Piggott Projections	
	2021/22 Proj. Jul	2022/23 Proj.	Difference
		Trend Yield	
	Mil. Acres	Mil Acres	Mil Acres
Area Planted	46.7	66.3	19.6
Area Harvested	37.2	52.8	
	Bu/Ac	Bu/Ac	Bu/Ac
Yield per Harvested Acre	44.3	49.8	5.5
	Mil Bu.	Mil Bu.	Mil Bu.
Beginning Stocks	845	583	-262
Production	1,646	2,631	985
Imports	115	145	30
Supply, Total	**2,606**	**3,069**	**463**
Demand			
Food	962	962	0
Seed	66	66	
Feed and Residual	135	135	0
Exports	875	875	0
Demand, Total	**2,023**	**2,023**	**0**
Ending Stocks (ES)	**583**	**1,046**	**463**
Stocks/Use	28.8%	51.7%	0
Avg Farm Price ($/bu)	$6.90	Below $6.70 (↓)	?

US Major Corn and Soybean Acreage 2000-2022P--Projections Needed to Replenish Ending Stocks w/ Trend Yields and 2021 Demand Constant



US Major Corn, Soybean, and Wheat Acreage 2000-2022P--Projections Needed to Replenish Ending Stocks w/ Trend Yields and 2021 Demand Constant



Crop Comparison Tool

https://cals.ncsu.edu/are-extension/wp-content/uploads/sites/27/2021/10/crop-comparison-tool_for_2022_with-cost-toggles-10-20-2021.xlsx

Budget Comparison 2021 Crop Year Cost & 2022 Market Conditions With Given Yields

2022 ESTIMATED GROSS RECIEPTS								
Enter Average Land Rent Value Here	100							
	Corn	**Soybean**	**Wheat**	**Sorghum**	**Cotton**	**Peanuts**	**Tobacco**	**Sweet Potatoes**
Yield (bu/acre)[1]	180	60	70	65	--	--	--	400.00
Yield (lbs./acre)--Cotton, Peanuts and Tobacco	--	--	--	--	1,200	5,000	2,000	--
Yield (lbs./acre)--Cotton Seed	--	--	--	--	1,440	--	--	--
Price (New Crop Futures Price from CME & NYBOT 10/19/2021) or contract price	$5.51	$12.19	$5.78	$5.23	$0.87	$0.22	$1.90	$9.00
Cotton Seed	--	--	--	--	$0.09	--	--	--
Current New Crop Basis	$0.85	$0.20	$0.85	$0.85	($0.02)	$0.00	$0.00	$0.00
EXPECTED NET PRICE (New Crop Futures + Basis)[2]	**$6.36**	**$12.39**	**$6.63**	**$6.08**	**$0.85**	**$0.22**	**$1.90**	**$9.00**
Gross Revenue	**$1,144.80**	**$743.40**	**$464.10**	**$395.49**	**$1,149.60**	**$1,100.00**	**$3,800.00**	**$3,600.00**
Budgeted Yield/5yr State Aver	**144%**	**162%**	**123%**	**113%**	**136%**	**123%**	**104%**	**108%**
2021 ESTIMATED VARIABLE EXPENSES[1]								
Total Variable Costs	**$510.55**	**$322.01**	**$320.06**	**$299.18**	**$677.46**	**$800.87**	**$3,120.61**	**$2,589.34**
Return above Variable Costs	**$634.25**	**$421.39**	**$144.04**	**$96.31**	**$472.14**	**$299.13**	**$679.39**	**$1,010.66**
2021 ESTIMATED FIXED EXPENSES								
*TRACTOR/MACHINERY	$49.75	$54.67	$42.11	$61.85	$117.75	$123.33	$405.12	$88.53
Bulk Barn, Tobacco Loading system, Bailer, H2A overhead (for tobacco only)				-	-	-	$309.58	-
-----FARM OVERHEAD IS INCLUDED ON THE CROP AND FARM SUMMARY SHEET-----								
Total Fixed Costs	**$49.75**	**$54.67**	**$42.11**	**$61.85**	**$117.75**	**$123.33**	**$714.70**	**$88.53**
Total Cost	**$560.30**	**$376.68**	**$362.17**	**$361.03**	**$795.21**	**$924.20**	**$3,835.31**	**$2,677.87**
NET RETURNS TO FARMER AND RISK:	**$584.50**	**$366.72**	**$101.93**	**$34.46**	**$354.39**	**$175.80**	**($35.31)**	**$922.13**

Crop Comparison Tool

https://cals.ncsu.edu/are-extension/wp-content/uploads/sites/27/2021/10/crop-comparison-tool_for_2022_with-cost-toggles-10-20-2021.xlsx

Enter the % Increase In Cost for the Featured Input		Corn	Soybean	Wheat	Sorghum	Cotton	Peanuts
--SEED or TRANSPLANT COST BY CROP		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Input Cost							
NITROGEN 30%	0.0%						
DAP (18-46-0)	0.0%						
PHOSPHATE (0-46-0)	0.0%						
POTASH (0-0-60)	0.0%						
LIME (PRORATED)	0.0%						
HERBICIDES	0.0%						
INSECTICIDES	0.0%						

CROP COMPARISON SUMMARY NO INCREASE	Corn	Soybean	Wheat	Sorghum	Cotton	Peanuts
Gross Revenue	$1,144.80	$743.40	$464.10	$395.49	$1,149.60	$1,100.00
Total Variable Costs	$510.55	$322.01	$320.06	$299.18	$677.46	$800.87
Total Fixed Costs	$49.75	$54.67	$42.11	$61.85	$117.75	$123.33
Total Cost	$560.30	$376.68	$362.17	$361.03	$795.21	$924.20
NET RETURNS TO FARMER AND RISK:	**$584.50**	**$366.72**	**$101.93**	**$34.46**	**$354.39**	**$175.80**

Projected Input Costs Using % Increase from Yellow Cells						
SEED or TRANSPLANTS	$79.68	$44.00	$45.00	$15.00	$88.62	$106.25
NITROGEN 30%	$43.40	--	$32.67	$23.24	$21.00	--
DAP (18-46-0)	$33.75	--	--	--	$25.00	--
PHOSPHATE (0-46-0)	--	$18.09	$15.83	$18.31	--	$12.48
POTASH (0-0-60)	$12.60	$20.72	$7.35	$6.30	$10.50	$21.00
LIME (PRORATED)	$17.99	$17.99	$17.99	$17.99	$17.99	$17.99
HERBICIDES	$32.72	$31.59	$11.41	$19.43	$63.07	$51.04
INSECTICIDES	--	--	$3.73	$5.17	$36.54	$16.39
Total Featured Input Costs	$220.14	$132.39	$133.98	$105.44	$262.72	$225.15
Additional Input Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
% Increase in Featured Input Costs	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Projected NET RETURNS TO FARMER AND RISK	**$584.50**	**$366.72**	**$101.93**	**$34.46**	**$354.39**	**$175.80**
Net Return Difference (Row 19 - Row 48)	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

Current and Historical North Carolina Corn, Soybean, and Wheat Price and Basis Data

https://agecon.ces.ncsu.edu/price_record/

Funded by the North Carolina Corn Growers

Team:

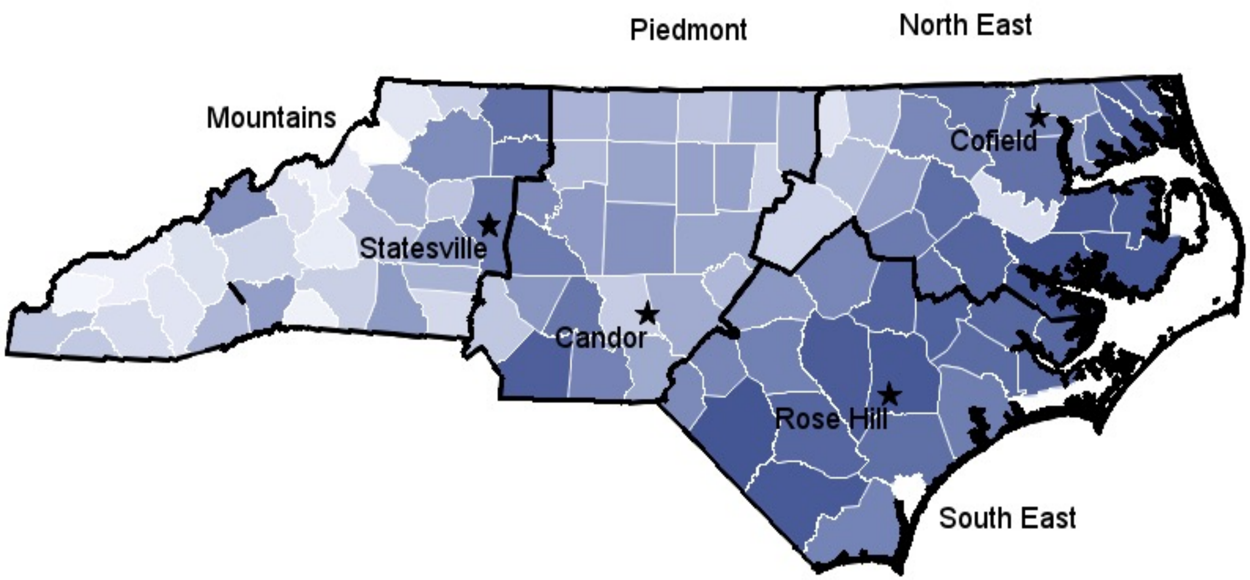
Nick Piggott (Faculty)

Heidi Schweizer (Faculty)

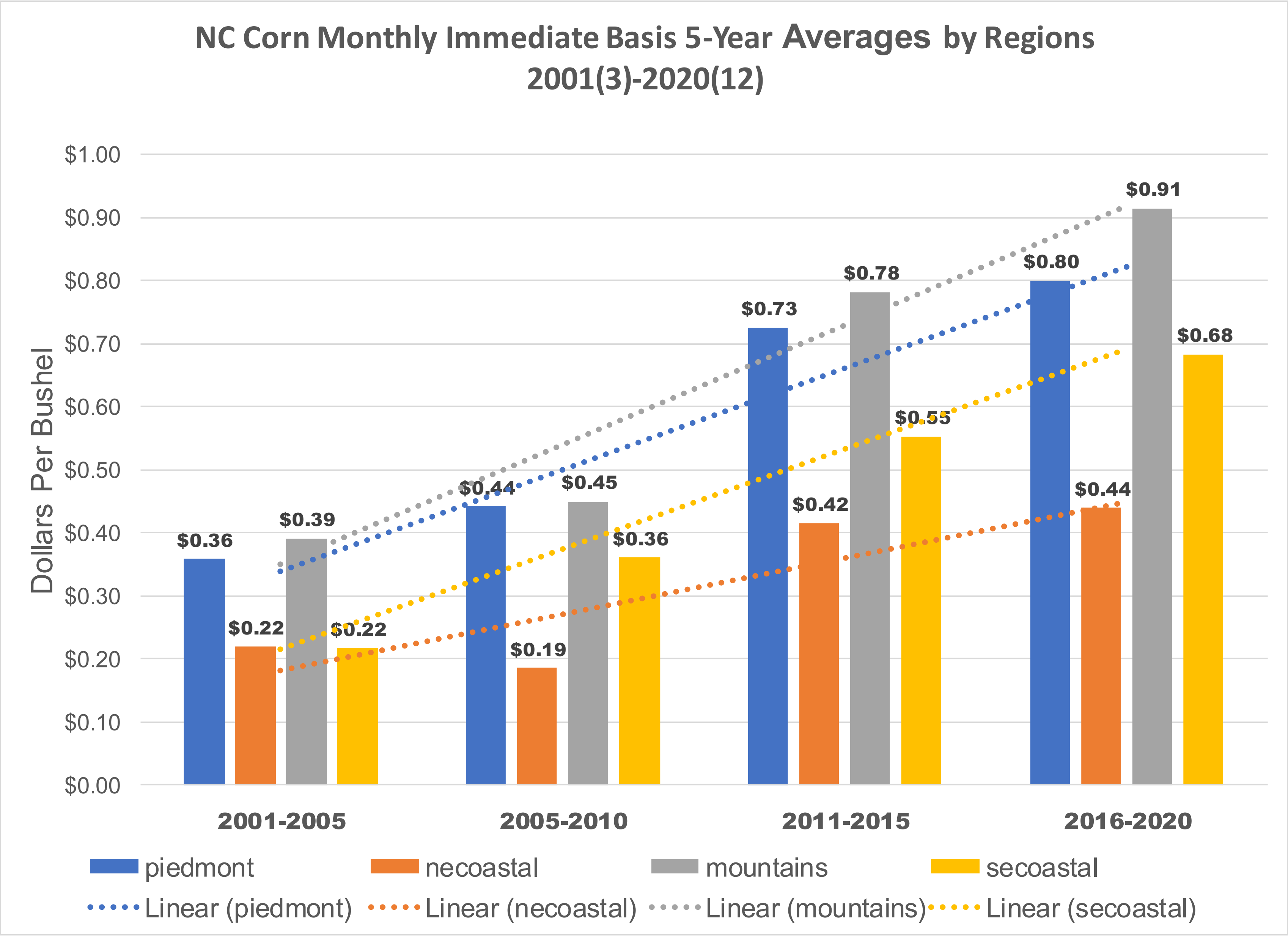
Robert Thompson (Graduate Student)

Robb Ladd (Extension IT)

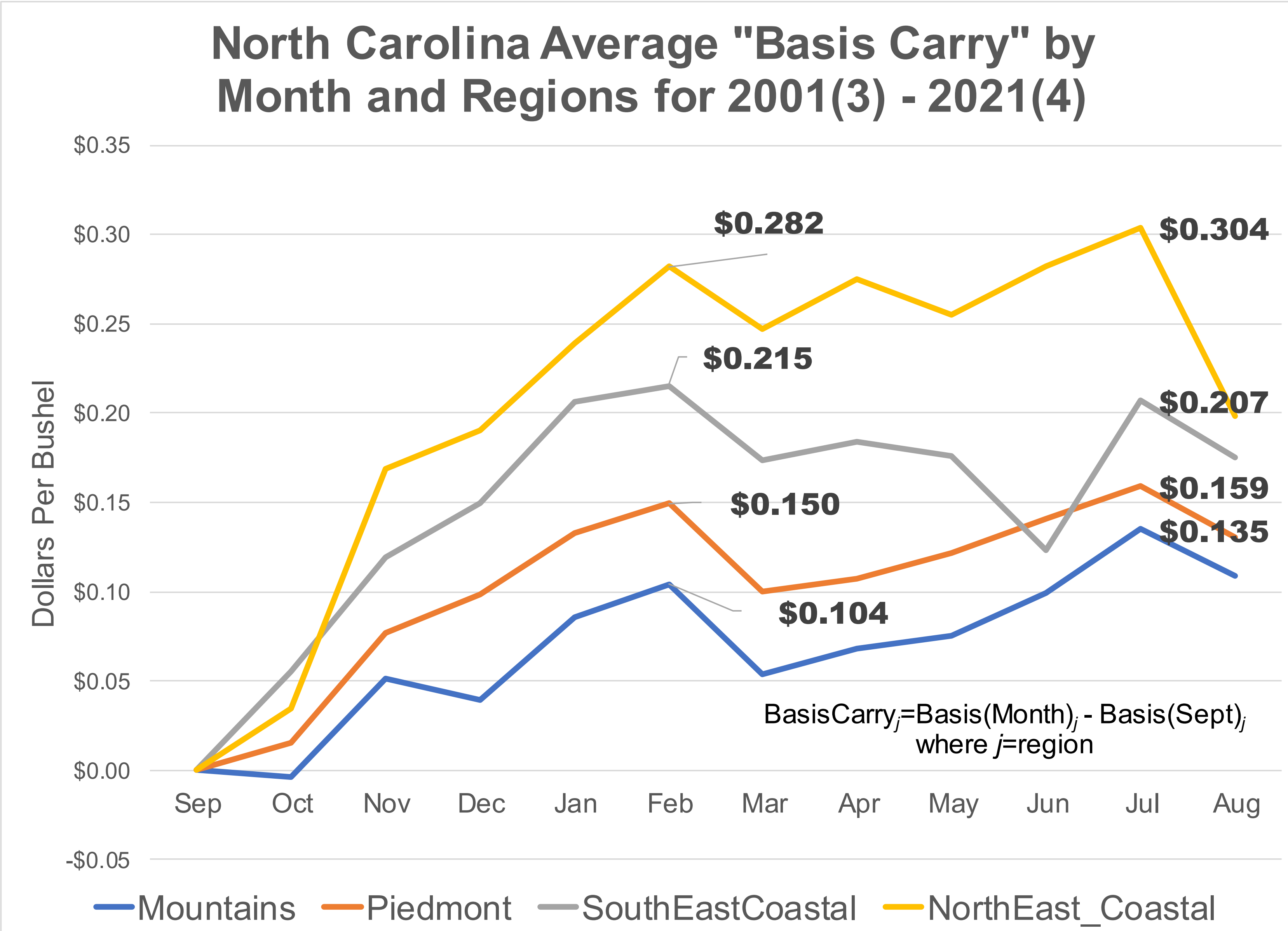
Corn Production by Regions and Markets



NC STATE UNIVERSITY | 125 YEARS



NC STATE UNIVERSITY | 125 YEARS



Final Thoughts

- Need slightly more corn and soybean acres and significantly more wheat acres and trend yields to replenish stocks
- Current price levels make for a profitable 2022 for corn ($580 per acre), soybeans ($360 per acre), and wheat ($100 per acre).
- Rising input costs such as seeds and fertilizer will impact these returns making them less profitable the question is how much?
- Higher nitrogen costs will
  - Potentially switch NC to more soybeans away from corn
  - Negatively impact NC wheat acres and yields
- The prospective planting report in March 2022 will be a crucial report and could provide significant momentum in prices as it did in 2021

THE END