Turmoil in Commodity Markets

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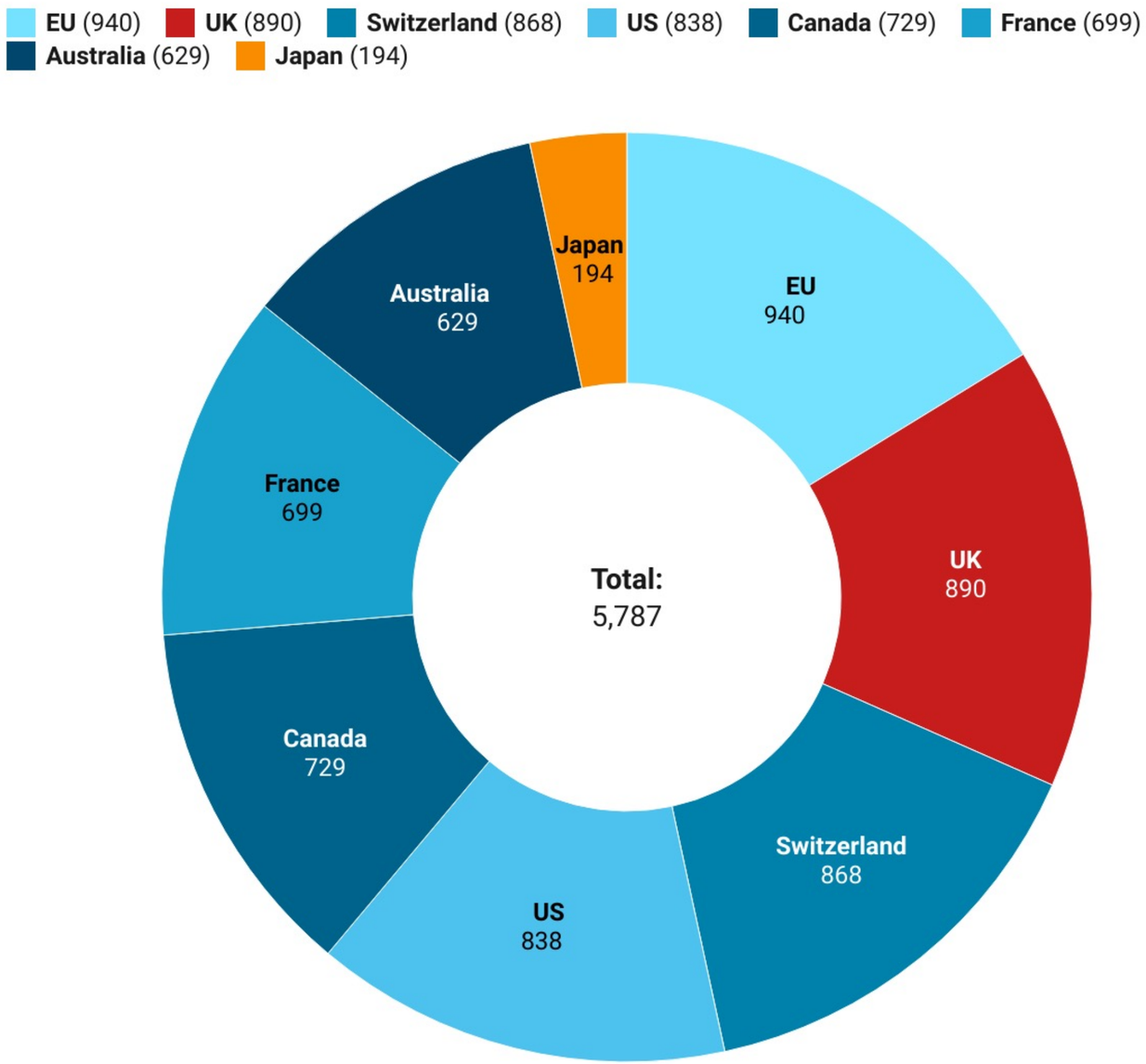
AGRICULTURAL ECONOMICS

Trade Sanctions

Who Sanctioned Russia

Since 22 February



Source: Castellum.AI • Created with Datawrapper

Major Sectoral Sanctions and Export Control Restrictions

Implementation: ✅ - Announced or Implemented, 🚫 Not Announced

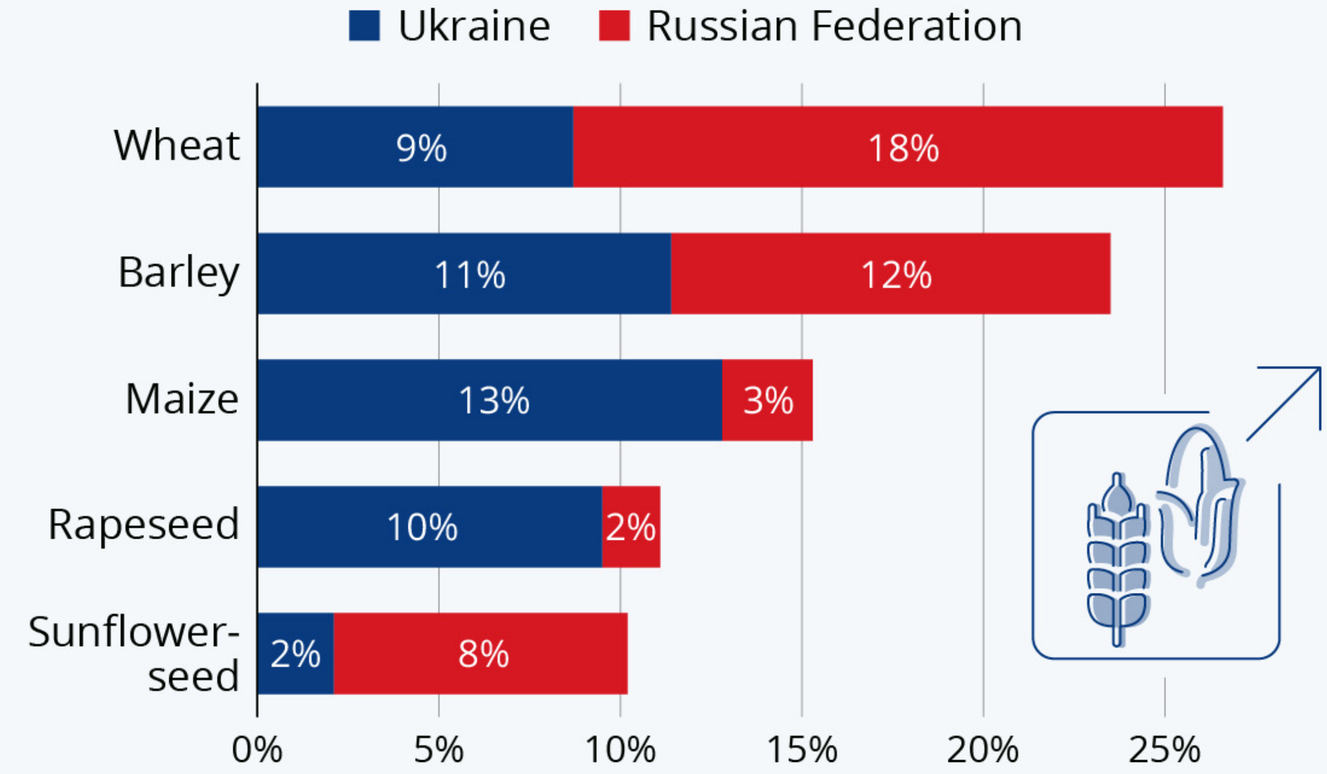
	Australia	Canada	EU	Japan	Switzerland	UK	US
Restrictions on Russian oil & gas imports	✅	✅	🚫	🚫	🚫	✅	✅
Restrictions on Russian coal imports	🚫	🚫	✅	✅	🚫	✅	✅
Restrictions on Russian metals imports	🚫	🚫	✅	🚫	✅	🚫	🚫
Restrictions on export of metals to Russia	✅	🚫	🚫	✅	🚫	🚫	🚫
Restrictions on export of luxury goods to Russia	✅	🚫	✅	✅	✅	✅	✅
Restrictions on import of luxury goods from Russia	🚫	🚫	🚫	🚫	🚫	🚫	✅
Restrictions on export of technology to Russia	🚫	✅	✅	✅	✅	✅	✅
Restrictions on Russian access to IMF & World Bank funds	✅	✅	✅	✅	🚫	✅	✅
Revocation of Most Favored Nation status	✅	✅	✅	✅	🚫	✅	✅
Restrictions on sovereign debt	✅	✅	✅	✅	✅	✅	✅
Restrictions on Russian banks' correspondent banking accounts	🚫	🚫	🚫	🚫	🚫	✅	✅
Restrictions on Russian banks' access to SWIFT	🚫	✅	✅	✅	✅	✅	✅

As of 11 April 2022

Source: Castellum.AI • Get the data • Embed • Created with Datawrapper

Why the War in Ukraine Threatens Global Food Security

Ukraine's and Russia's share in global exports of selected crops (2016-2020 average)



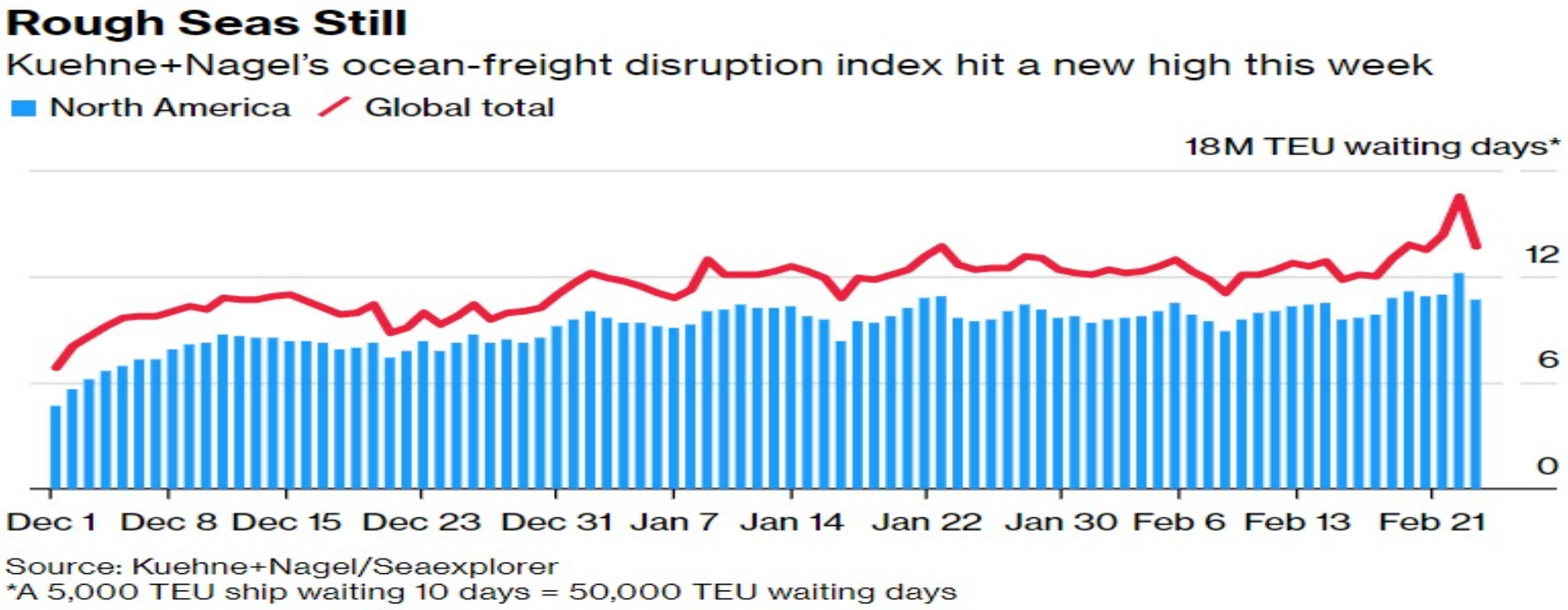
Source: Food and Agriculture Organization of the United Nations

These are container freight rates for April 4, 2022 according to the **Freightos Baltic Index:**

Containerized Freight Rates

FBX Lane	Global	Asia – US West Coast	Asia – US East Coast	Asia – North Europe	North Europe – US East Coast
This Week	$9,291	$15,817	$17,148	$12,050	$7,759
Last Week	-1%	0%	-3%	0%	-5%
Last Year*	119%	168%	192%	65%	172%

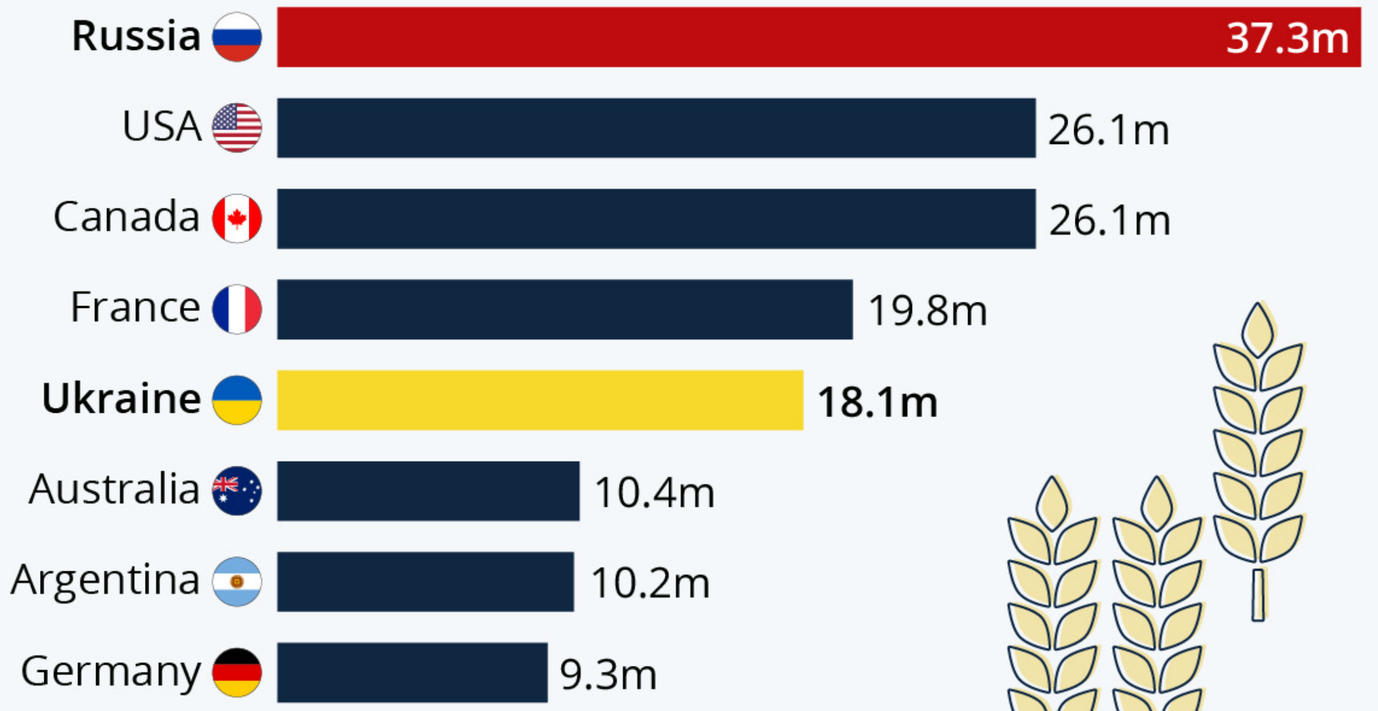
** Compared to the corresponding week in 2021*



Wheat

Ukraine Crisis Likely to Push Up Wheat Prices

The world's largest wheat exporters in 2020 (total exports in tonnes)*

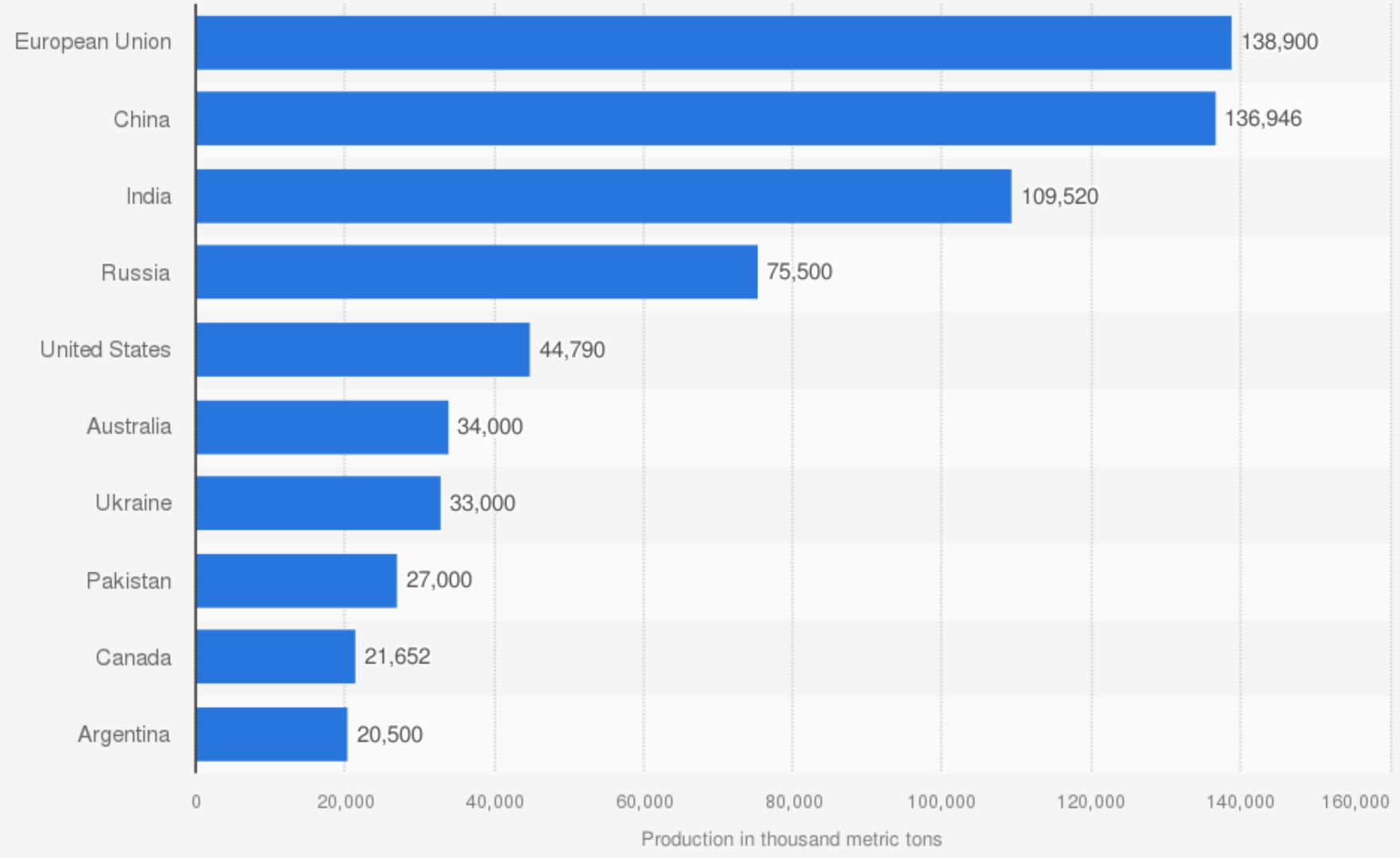


* HS Code 1001: wheat and meslin

Source: UN Comtrade Database

statista

Leading 10 wheat producers worldwide in 2021/2022 (in 1,000 metric tons)*

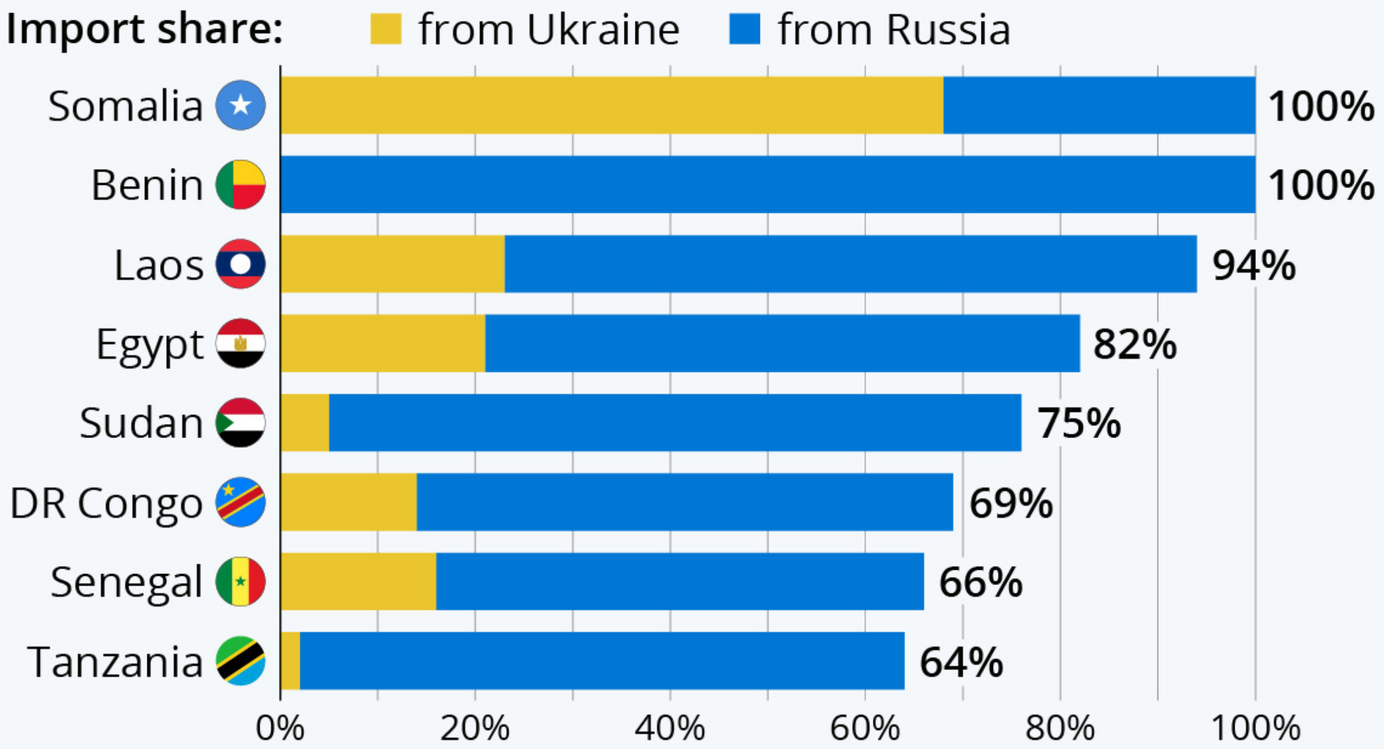


Sources
US Department of Agriculture; USDA Foreign Agricultural Service
© Statista 2022

Additional Information:
Worldwide; USDA Foreign Agricultural Service; 2021/2022

The Most Vulnerable Countries Amid Wheat Shortages

Countries among the world's least developed which are most dependent on wheat imports from Russia and Ukraine (2020)



Least developed and/or African countries

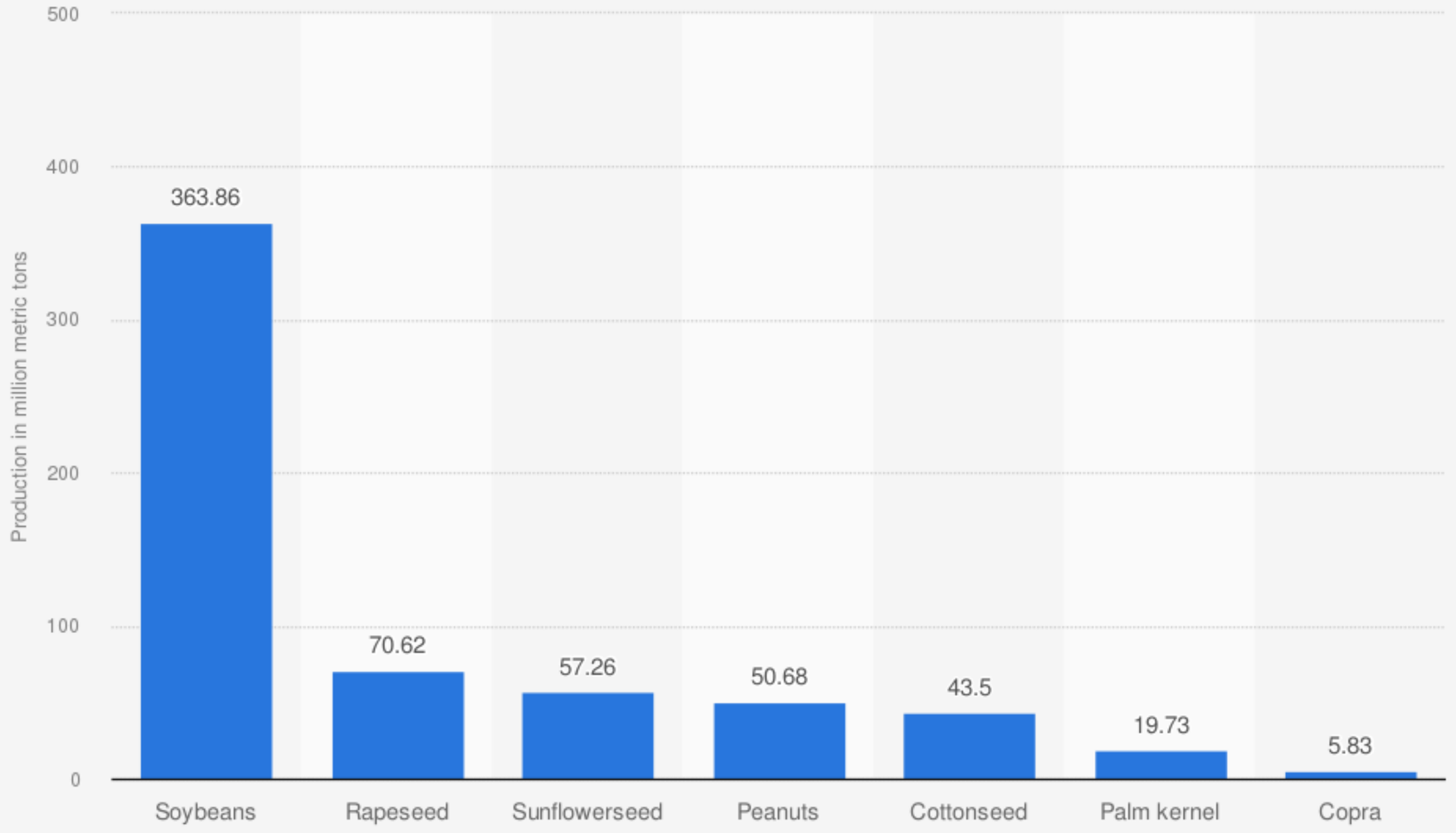
Sources: UNCTAD, Statista

cc

statista

Sunflower Oil

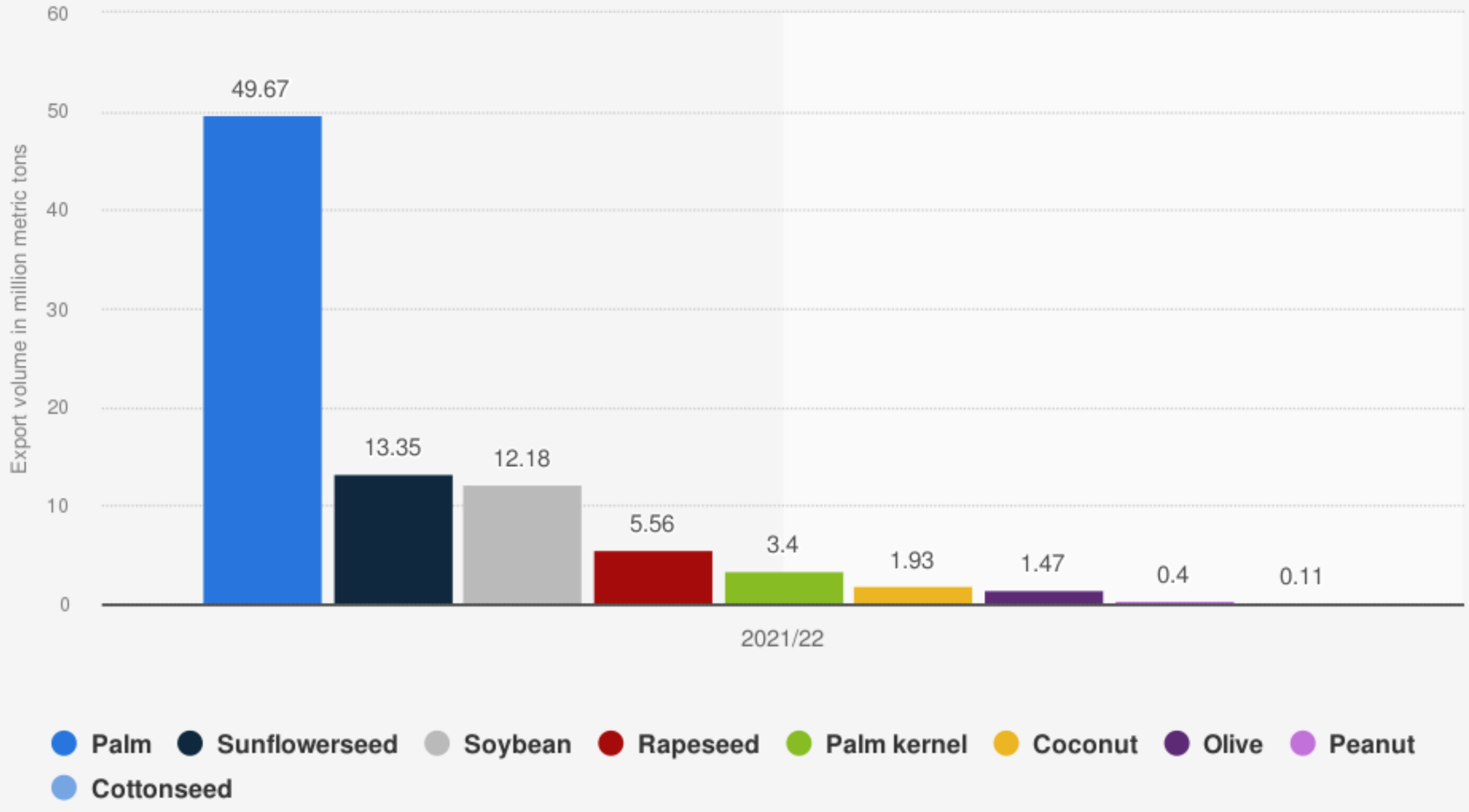
Worldwide oilseed production in 2021/2022, by type (in million metric tons)



Sources
US Department of Agriculture; USDA Foreign Agricultural Service
© Statista 2022

Additional Information:
Worldwide; US Department of Agriculture; USDA Foreign Agricultural Service; 2021/22

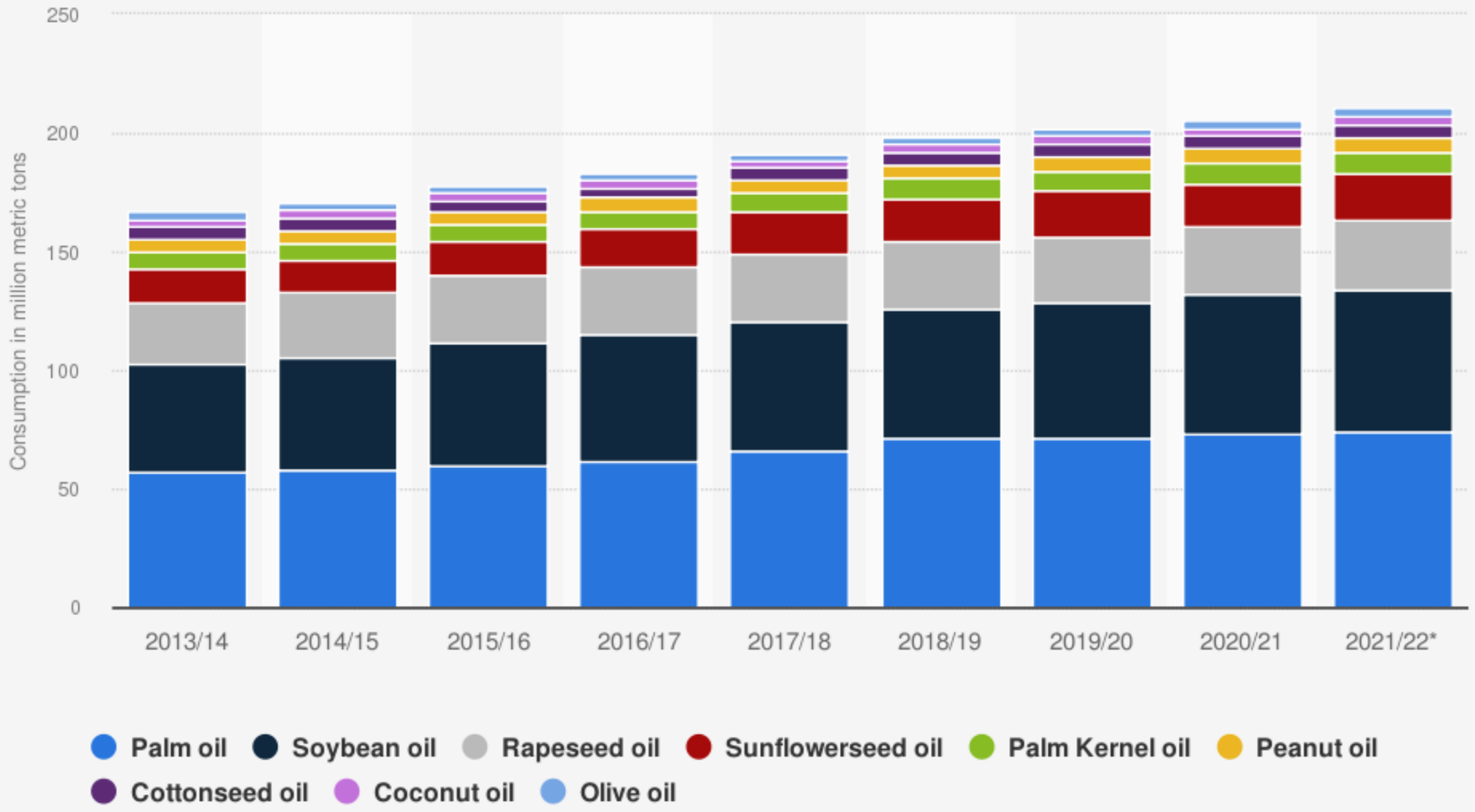
Export volume of major vegetable oils worldwide in 2021/22, by type (in million metric tons)



Sources
US Department of Agriculture; USDA Foreign Agricultural Service
© Statista 2022

Additional Information:
Worldwide; US Department of Agriculture; USDA Foreign Agricultural Service; 2021/22

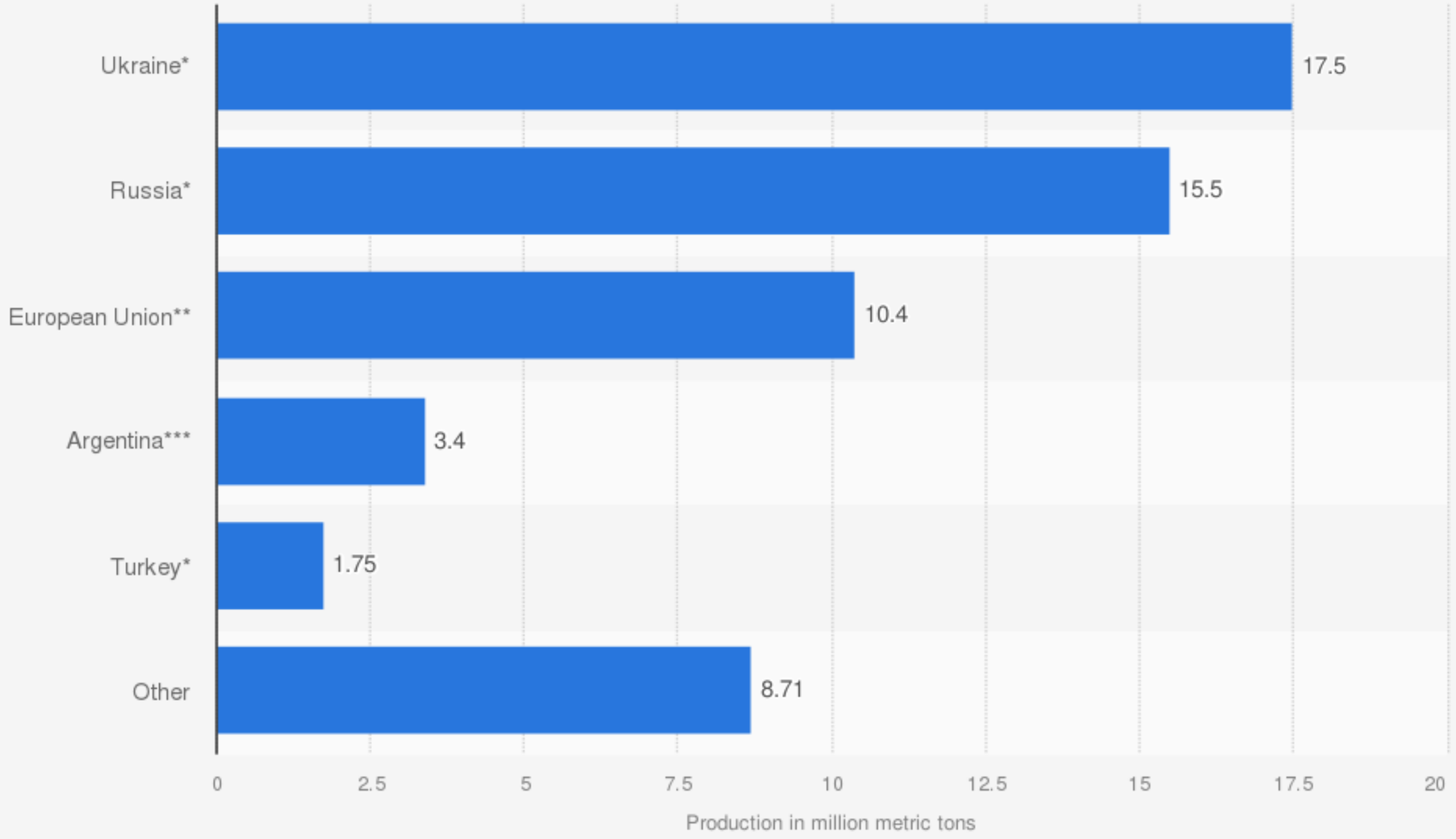
Consumption of vegetable oils worldwide from 2013/14 to 2021/2022, by oil type (in million metric tons)



Sources
US Department of Agriculture; USDA Foreign Agricultural Service
© Statista 2022

Additional Information:
Worldwide; US Department of Agriculture; USDA Foreign Agricultural Service; 2013/14 to 2021/22

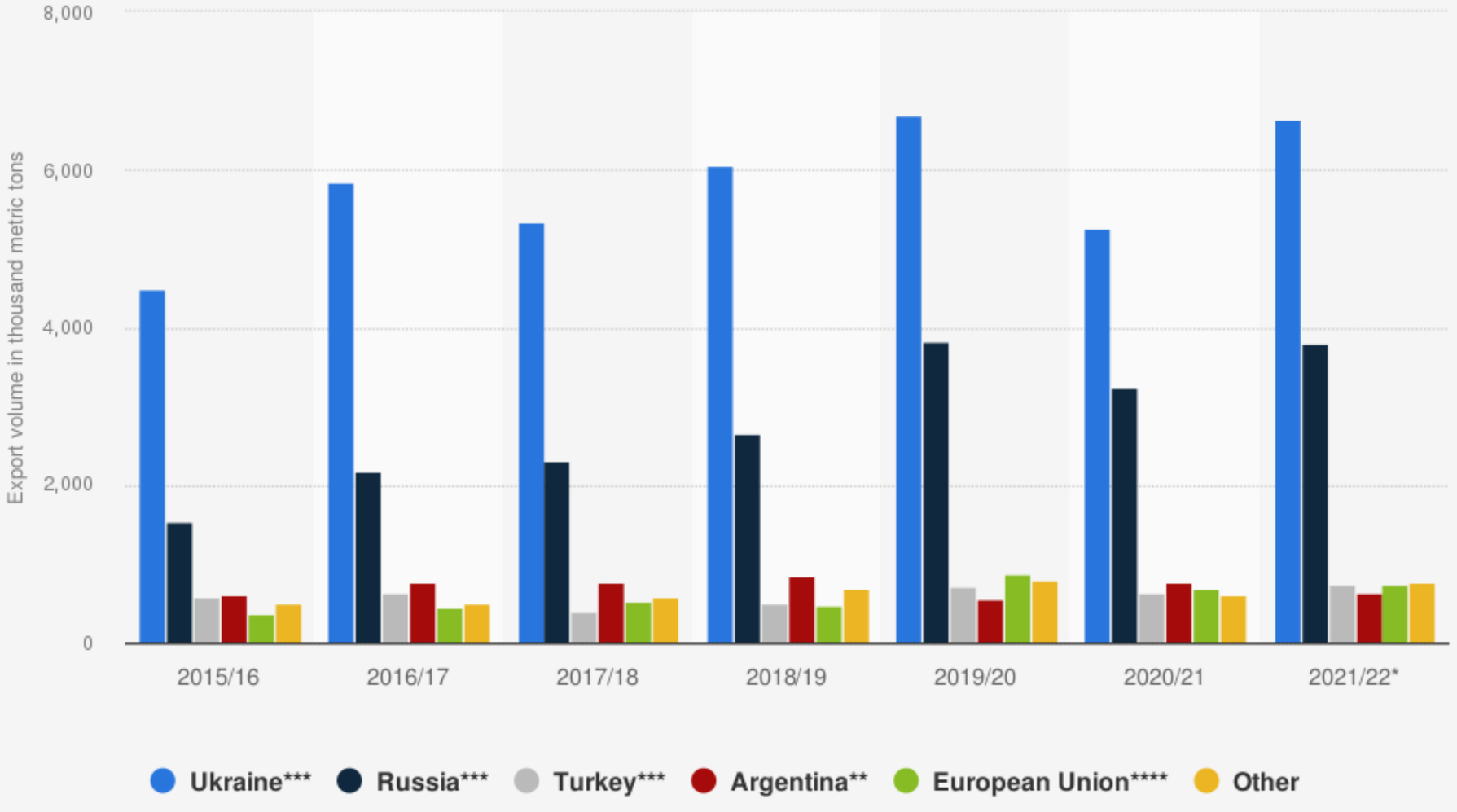
Production volume of sunflower seed in major producer countries in 2021/2022 (in million metric tons)



Source
US Department of Agriculture
© Statista 2022

Additional Information:
Worldwide; US Department of Agriculture; 2021/2022

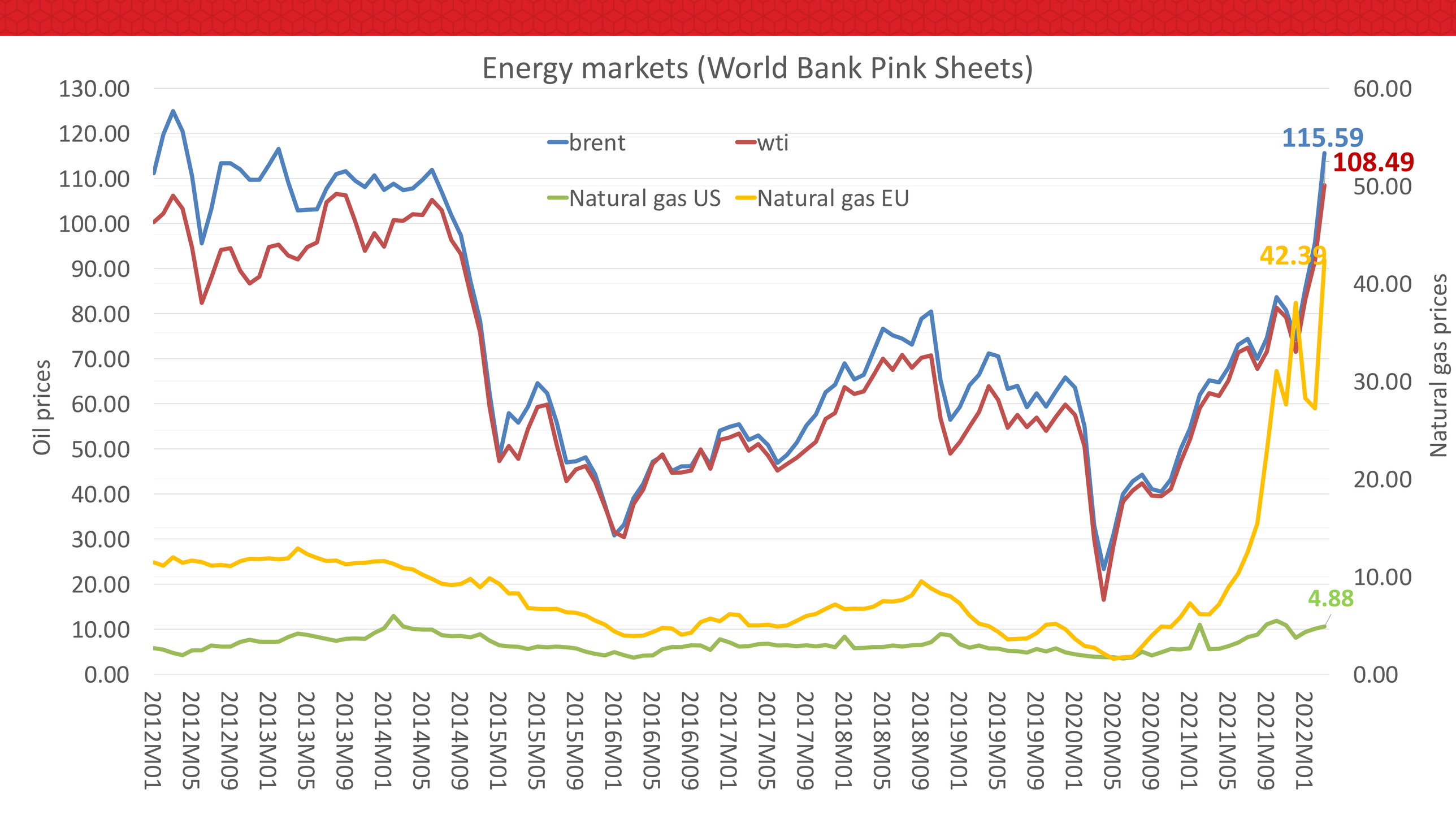
Export volume of sunflowerseed oil worldwide from 2015/16 to 2021/22, by country (in 1,000 metric tons)



Sources
US Department of Agriculture; USDA Foreign Agricultural Service
© Statista 2022

Additional Information:
Worldwide; US Department of Agriculture; USDA Foreign Agricultural Service; 2015/16 and 2021/22

International Commodity Prices


Energy markets (World Bank Pink Sheets)
brent
wti
Natural gas US
Natural gas EU
115.59
108.49
42.39
4.88
Oil prices
Natural gas prices
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
2012M01
2012M05
2012M09
2013M01
2013M05
2013M09
2014M01
2014M05
2014M09
2015M01
2015M05
2015M09
2016M01
2016M05
2016M09
2017M01
2017M05
2017M09
2018M01
2018M05
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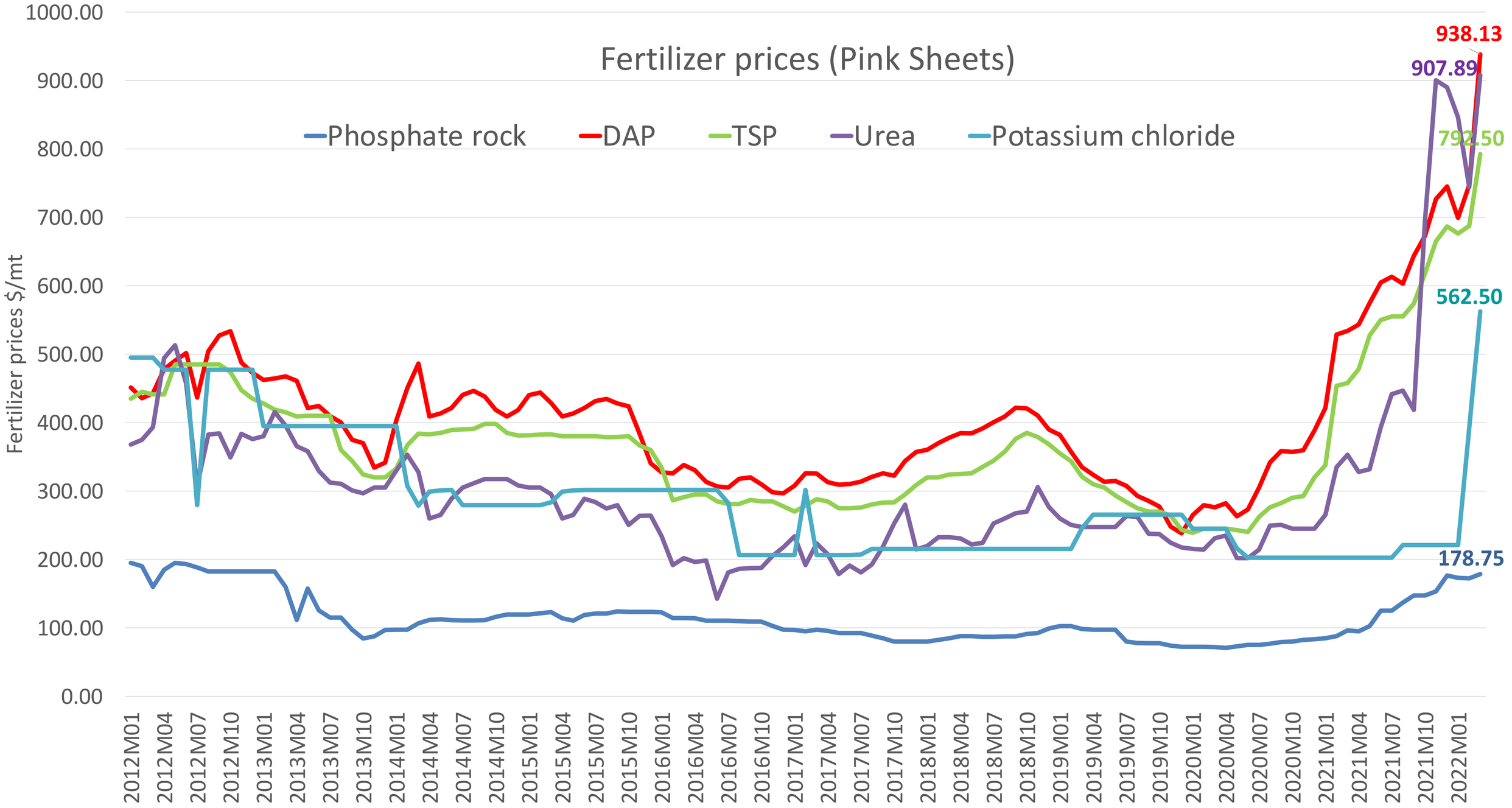
2019M09
2020M01
2020M05
2020M09
2021M01
2021M05
2021M09
2022M01


Fertilizer prices (Pink Sheets)
Phosphate rock
DAP
TSP
Urea
Potassium chloride
Fertilizer prices $/mt
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
938.13
907.89
792.50
562.50
178.75
2012M01
2012M04
2012M07
2012M10
2013M01
2013M04
2013M07
2013M10
2014M01
2014M04
2014M07
2014M10
2015M01
2015M04
2015M07
2015M10
2016M01
2016M04
2016M07
2016M10
2017M01
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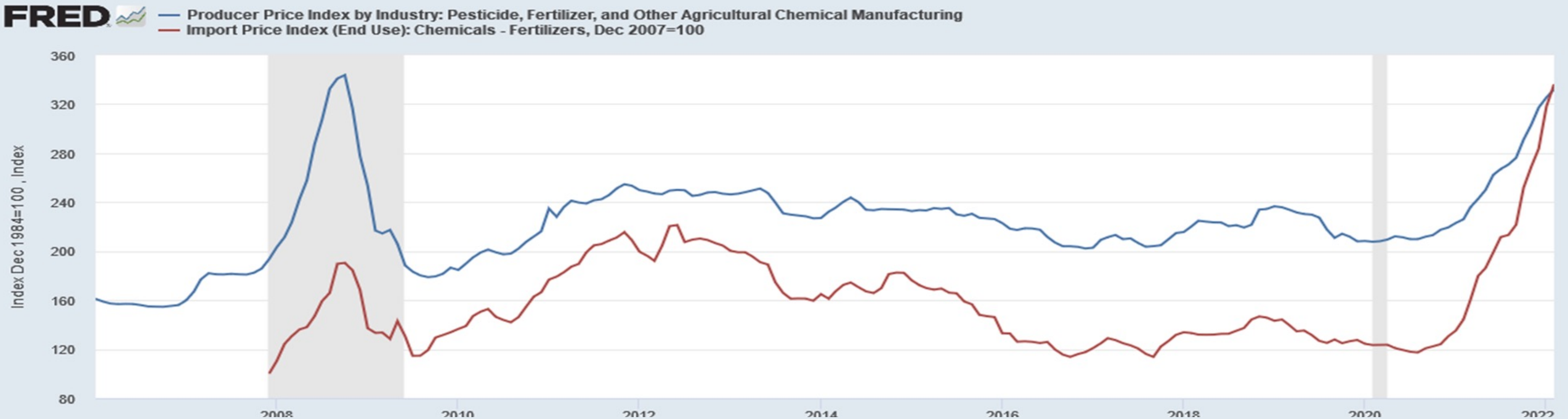
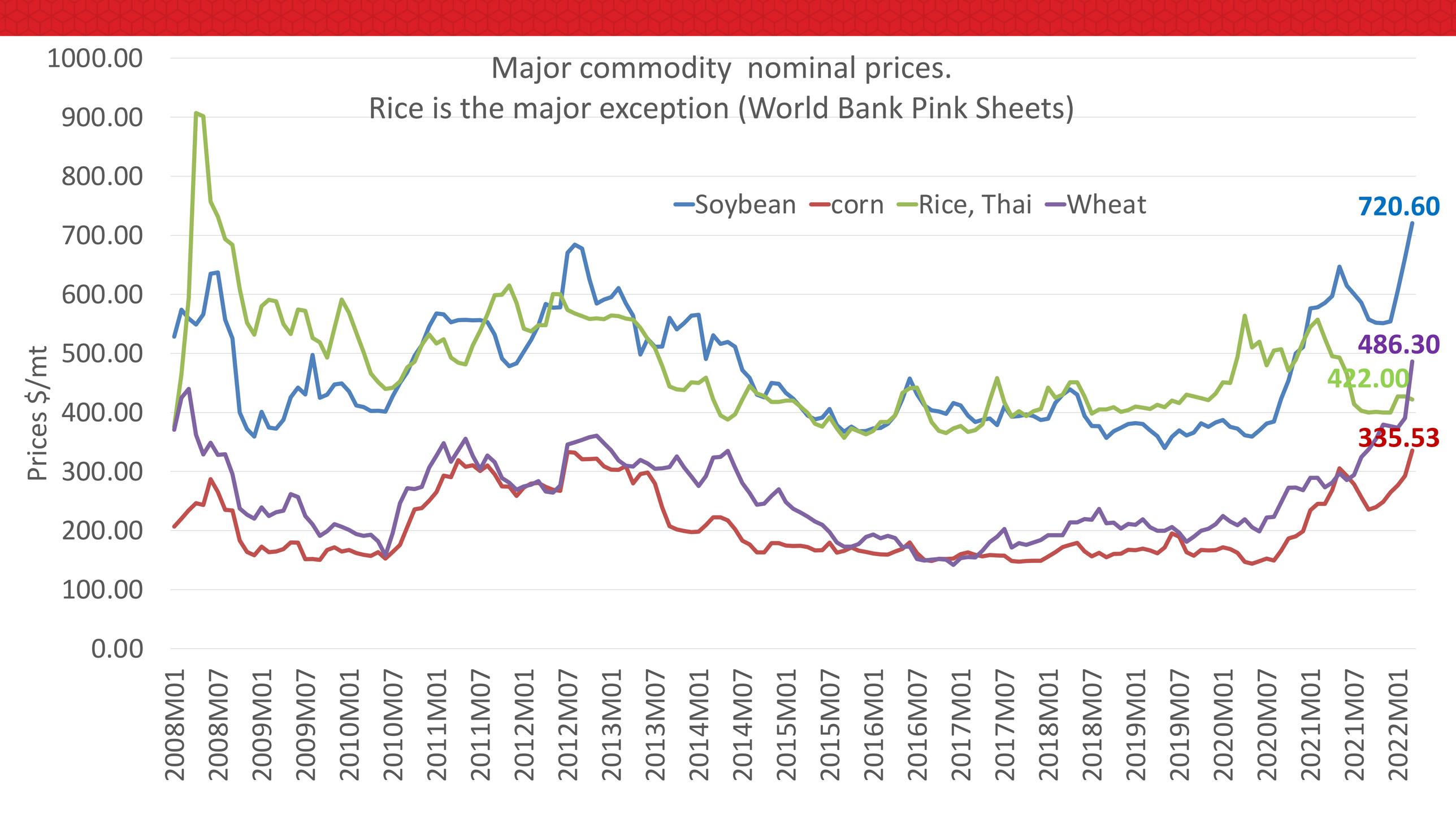
2021M01
2021M04
2021M07
2021M10
2022M01



Shaded areas indicate U.S. recessions.

Source: U.S. Energy Information Administration

fred.stlouisfed.org


Major commodity nominal prices.
Rice is the major exception (World Bank Pink Sheets)
Soybean
corn
Rice, Thai
Wheat
720.60
486.30
422.00
335.53
Prices $/mt
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
2008M01
2008M07
2009M01
2009M07
2010M01
2010M07
2011M01
2011M07
2012M01
2012M07
2013M01
2013M07
2014M01
2014M07
2015M01
2015M07
2016M01
2016M07
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2019M01
2019M07
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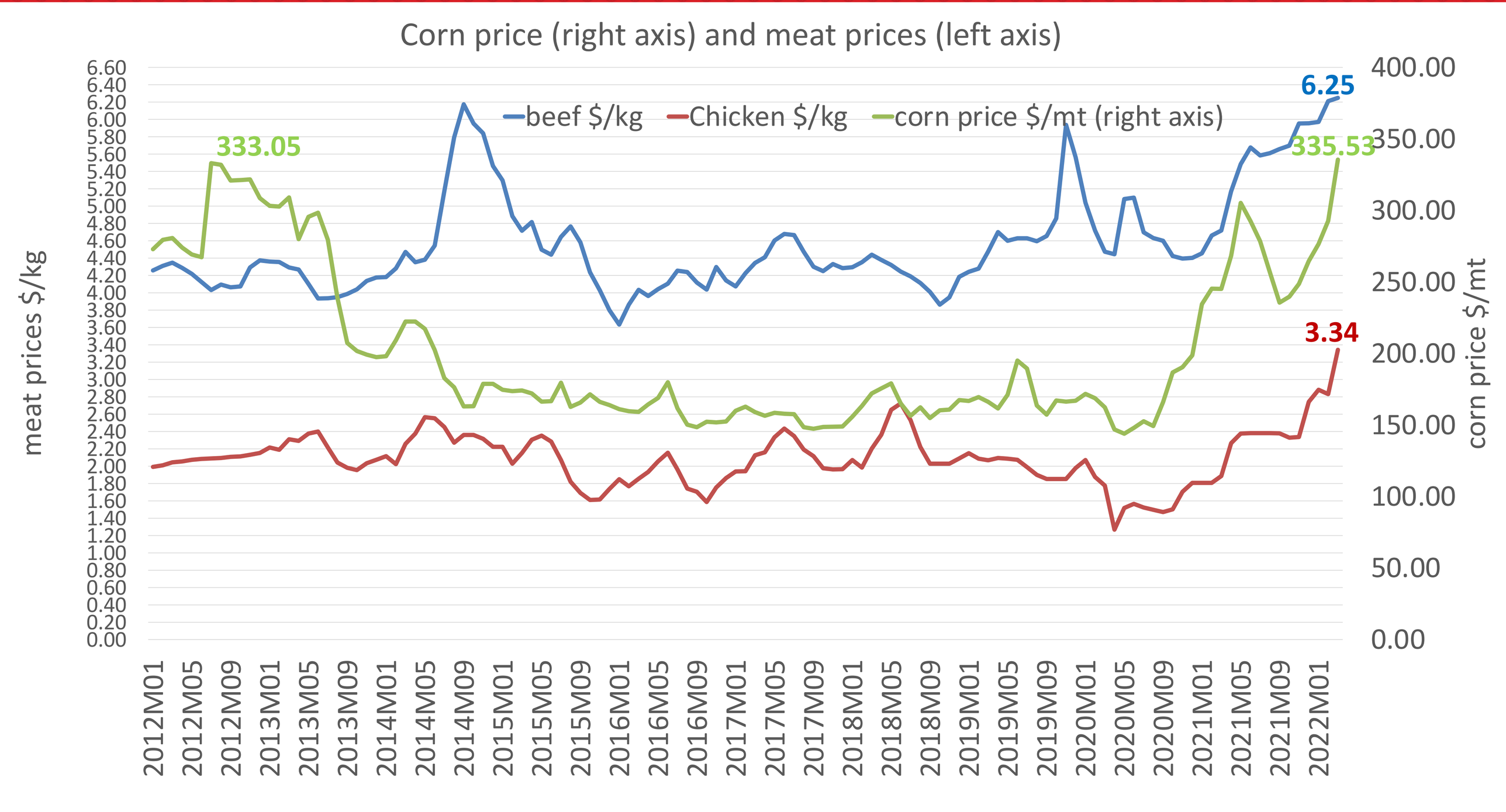
2020M07
2021M01
2021M07
2022M01


Corn price (right axis) and meat prices (left axis)
beef $/kg
Chicken $/kg
corn price $/mt (right axis)
meat prices $/kg
corn price $/mt
333.05
335.53
6.25
3.34
6.60
6.40
6.20
6.00
5.80
5.60
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
400.00
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
2012M01
2012M05
2012M09
2013M01
2013M05
2013M09
2014M01
2014M05
2014M09
2015M01
2015M05
2015M09
2016M01
2016M05
2016M09
2017M01
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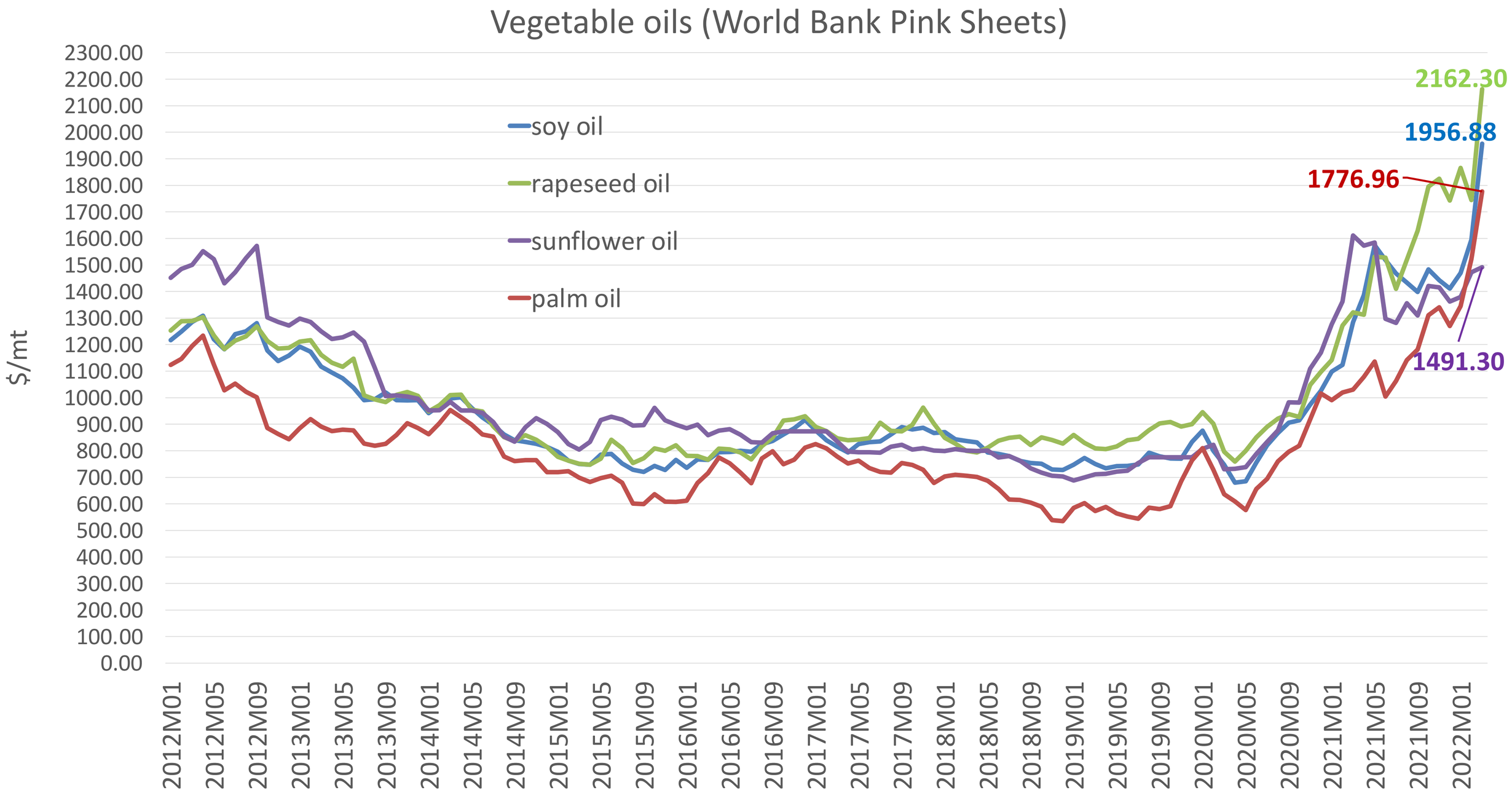
2020M05
2020M09
2021M01
2021M05
2021M09
2022M01


Vegetable oils (World Bank Pink Sheets)
$/mt
2300.00
2200.00
2100.00
2000.00
1900.00
1800.00
1700.00
1600.00
1500.00
1400.00
1300.00
1200.00
1100.00
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
soy oil
rapeseed oil
sunflower oil
palm oil
2162.30
1956.88
1776.96
1491.30
2012M01
2012M05
2012M09
2013M01
2013M05
2013M09
2014M01
2014M05
2014M09
2015M01
2015M05
2015M09
2016M01
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2018M05
2018M09
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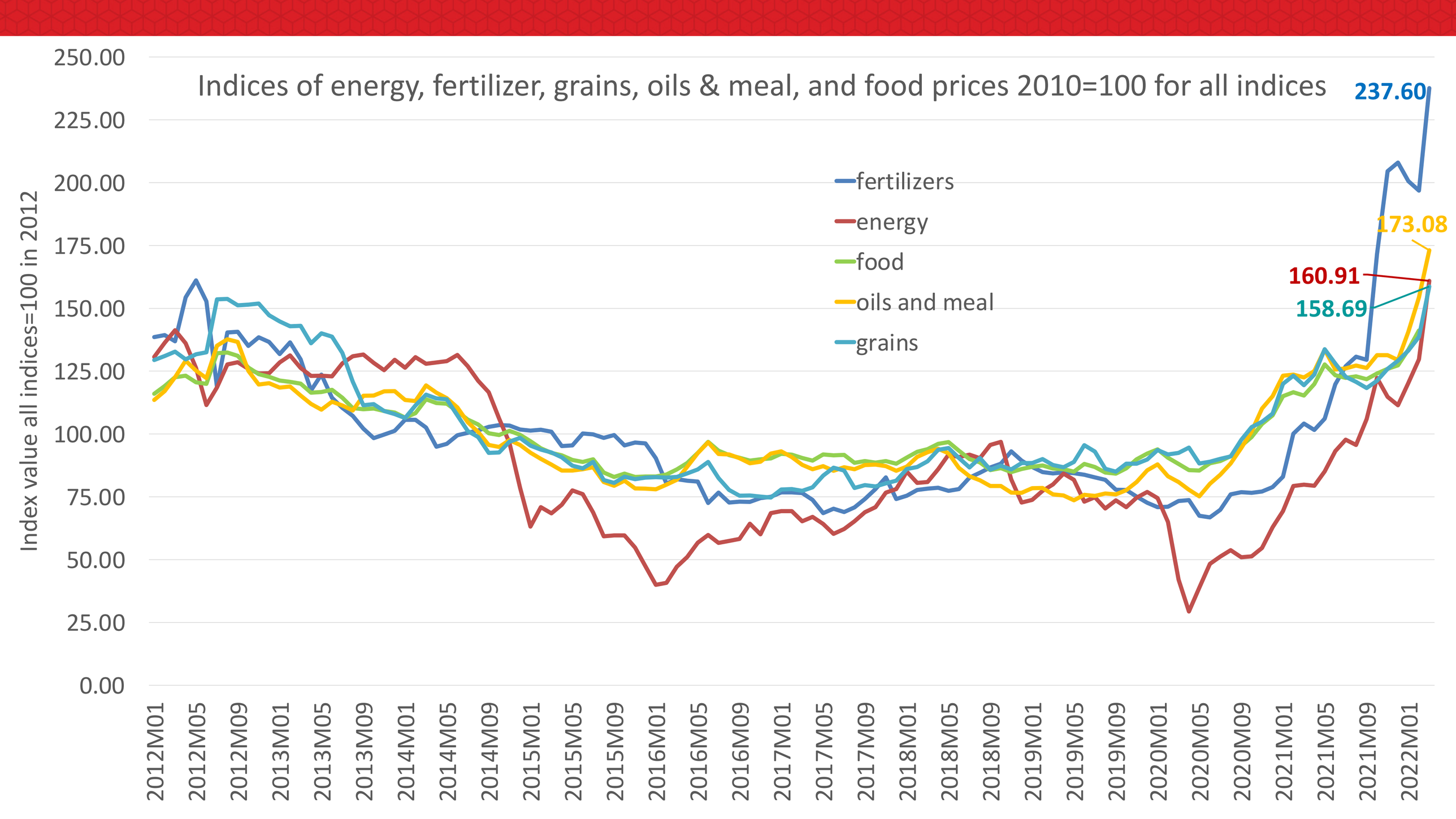
2019M05
2019M09
2020M01
2020M05
2020M09
2021M01
2021M05
2021M09
2022M01


Indices of energy, fertilizer, grains, oils & meal, and food prices 2010=100 for all indices
Index value all indices=100 in 2012
250.00
225.00
200.00
175.00
150.00
125.00
100.00
75.00
50.00
25.00
0.00
fertilizers
energy
food
oils and meal
grains
237.60
173.08
160.91
158.69
2012M01
2012M05
2012M09
2013M01
2013M05
2013M09
2014M01
2014M05
2014M09
2015M01
2015M05
2015M09
2016M01
2016M05
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2017M01
2017M05
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2019M01
2019M05
2019M09
2020M01
2020M05
2020M09
2021M01
2021M05
2021M09
2022M01

99.84

▲0.04 0.04%

Last Updated: Apr 10, 2022 5:03 p.m. EDT
- Delayed quote

PREVIOUS CLOSE

99.80

1D 5D 10D 1M 3M 6M YTD 1Y 2Y 3Y 5Y 10Y ALL

Monthly

Line

INDICATORS

Chart Overlays | Lower Charts | Events | News

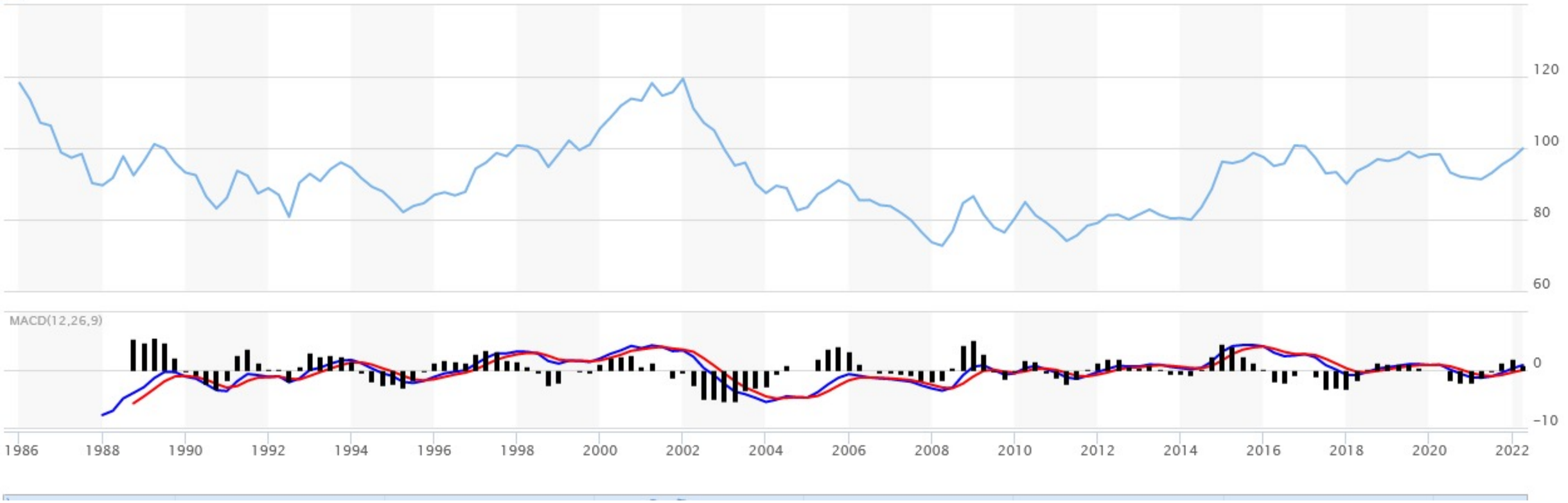
COMPARE

COMPARE SYMBOL

RESTORE DEFAULTS STORE SETTINGS

US:DXY MACD EDIT ×

DISPLAY TOOLTIP



Grain Dependency Ratio (import/domestic use)

Corn Dependency	2021/2022	Wheat Dependency	2021/2022
Algeria	100%	Algeria	67%
Egypt	60%	Egypt	59%
Iran	86%	Ethiopia	25%
Iraq	70%	Iran	36%
Jordan	100%	Iraq	40%
Lebanon	100%	Jordan	89%
Libya	100%	Lebanon	93%
Morocco	97%	Libya	88%
Syria	66%	Morocco	48%
Tunisia	100%	Nigeria	106%
		Syria	31%
		Tunisia	59%

Dependency Ratio for Vegetable Oils

Palm Oil Dependency	2021/2022	Soy Oil Dependency	2021/2022	Sunflower Oil Dependency	2021/2022
Algeria	100%	Algeria	71%	Algeria	100%
Egypt	101%	Egypt	41%	Egypt	96%
Ethiopia	100%	Ethiopia	12%	Iran	77%
Iran	94%	Iran	38%	Iraq	95%
Iraq	95%	Jordan	96%	Jordan	100%
Jordan	100%	Lebanon	50%	Lebanon	96%
Nigeria	25%	Morocco	99%	Libya	83%
Tunisia	100%	Syria	50%	Morocco	85%
		Tunisia	44%	Syria	100%

Market Characterization

- Characterize the wheat and soybean by inspecting:

  Policy changes

  Prices
    Futures
    Basis

  Market participants

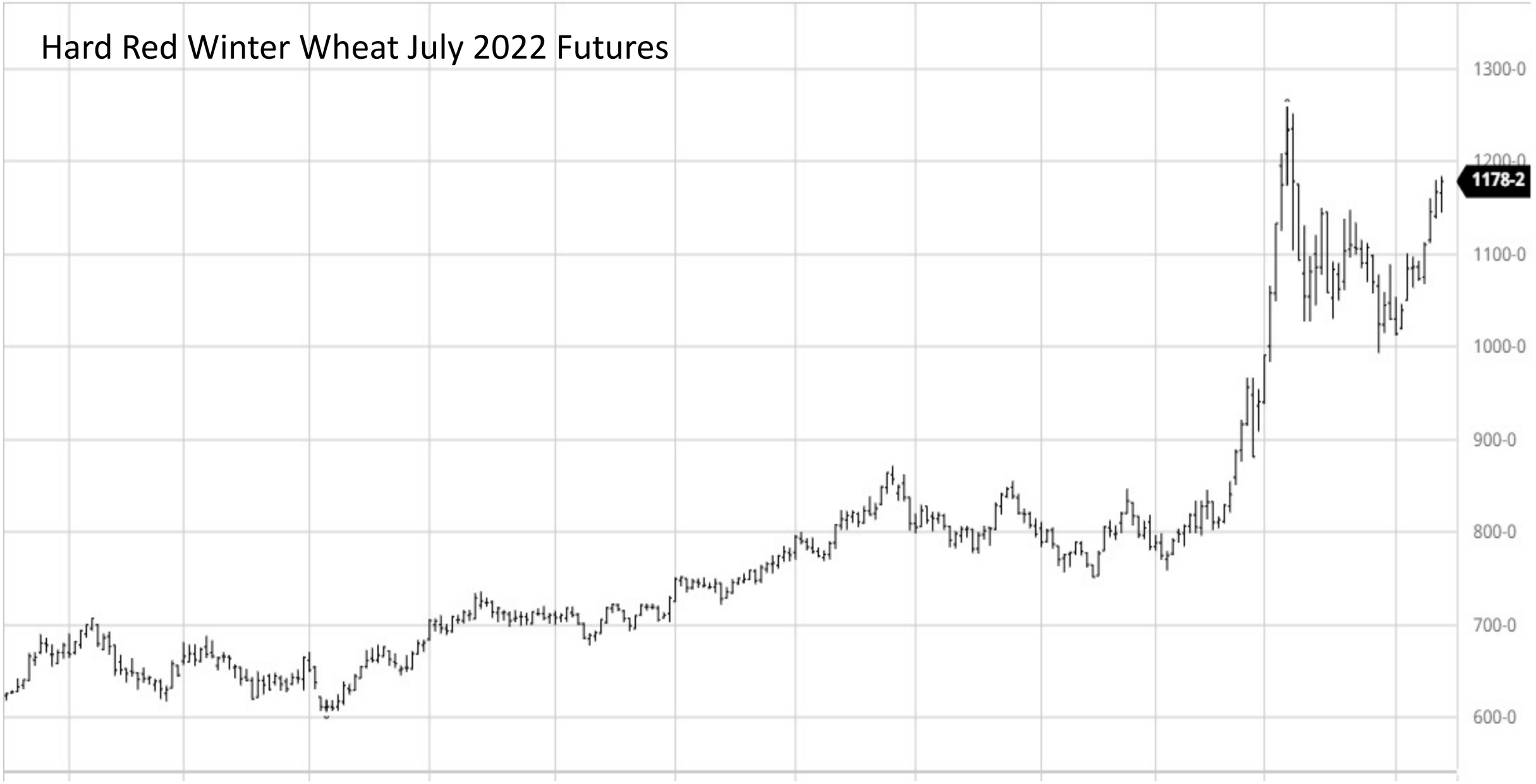
  Domestic production possibilities

  2023 and beyond.

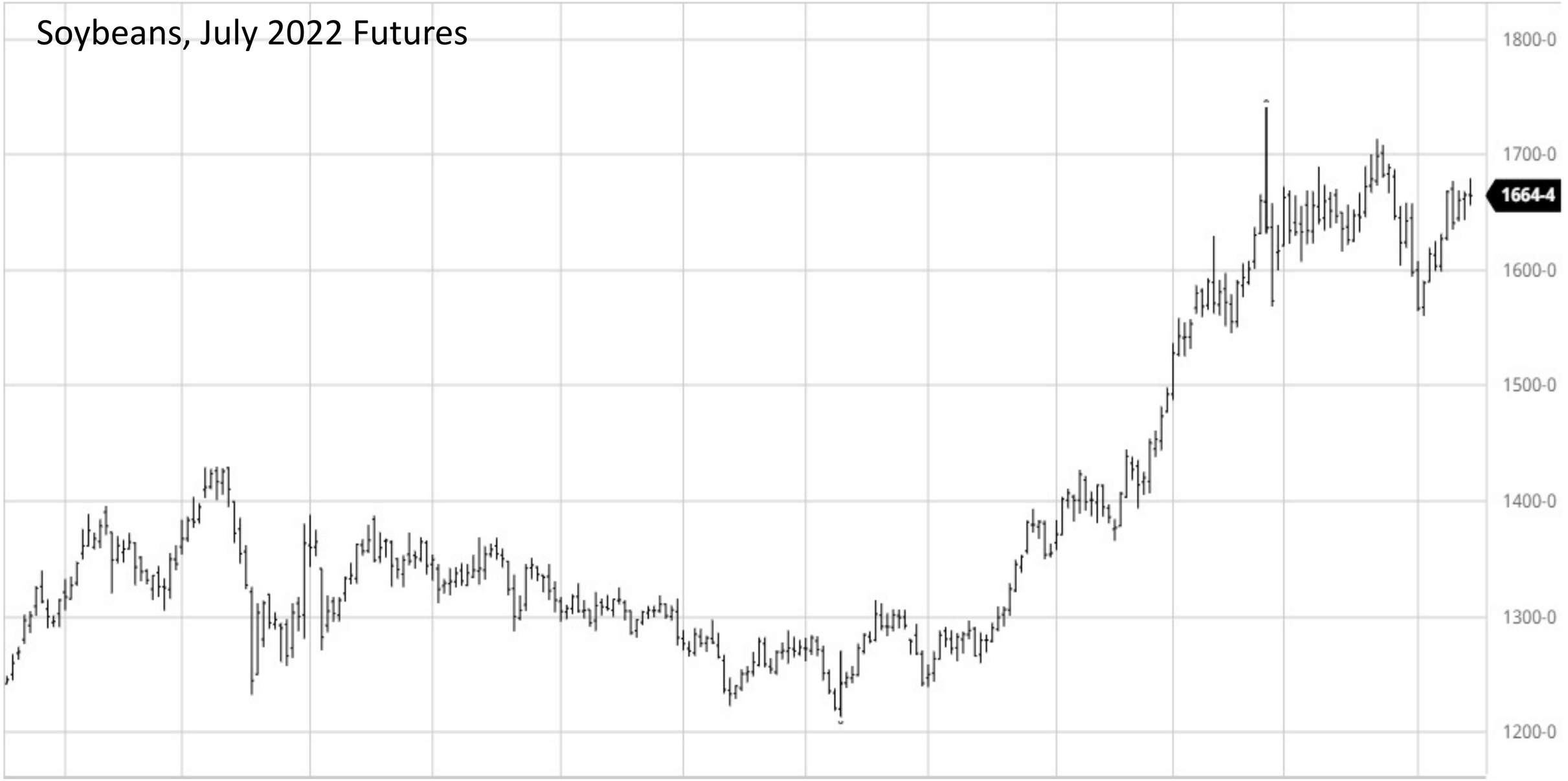
- This week: Biden administration to allow summertime E15 sales
  - Intended to lower fuel prices at the pump
    - Industry suggests only 2,300 gas stations will be impacted

  - New corn supply coming this fall, after summer.
  - July corn futures hitting new highs. $7.80/bushel
  - Immediate impact on meat markets?

Hard Red Winter Wheat July 2022 Futures



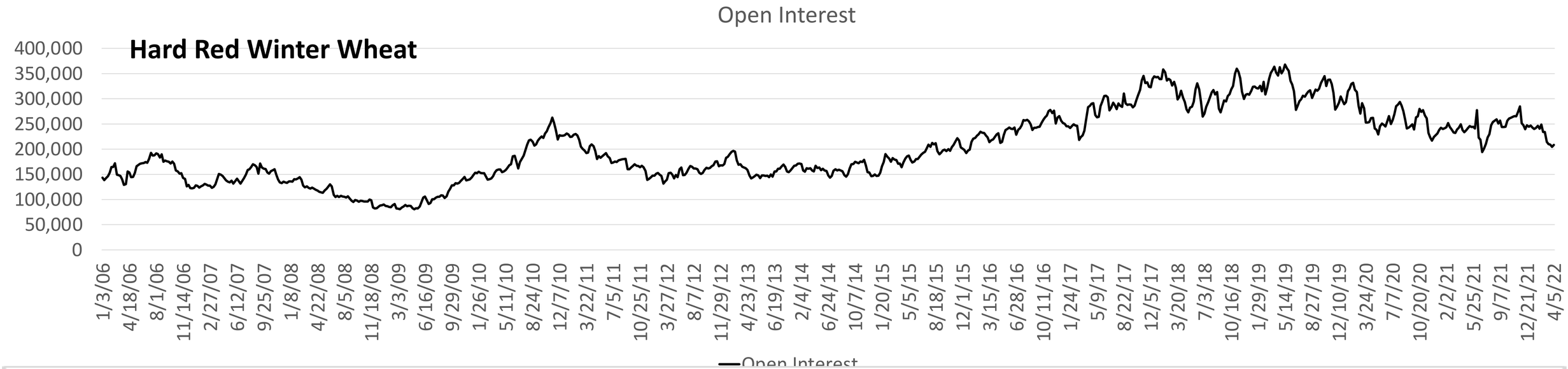
Soybeans, July 2022 Futures



- **Basis**
  Difference between cash and futures prices.
  Reflects whether the market wants grain

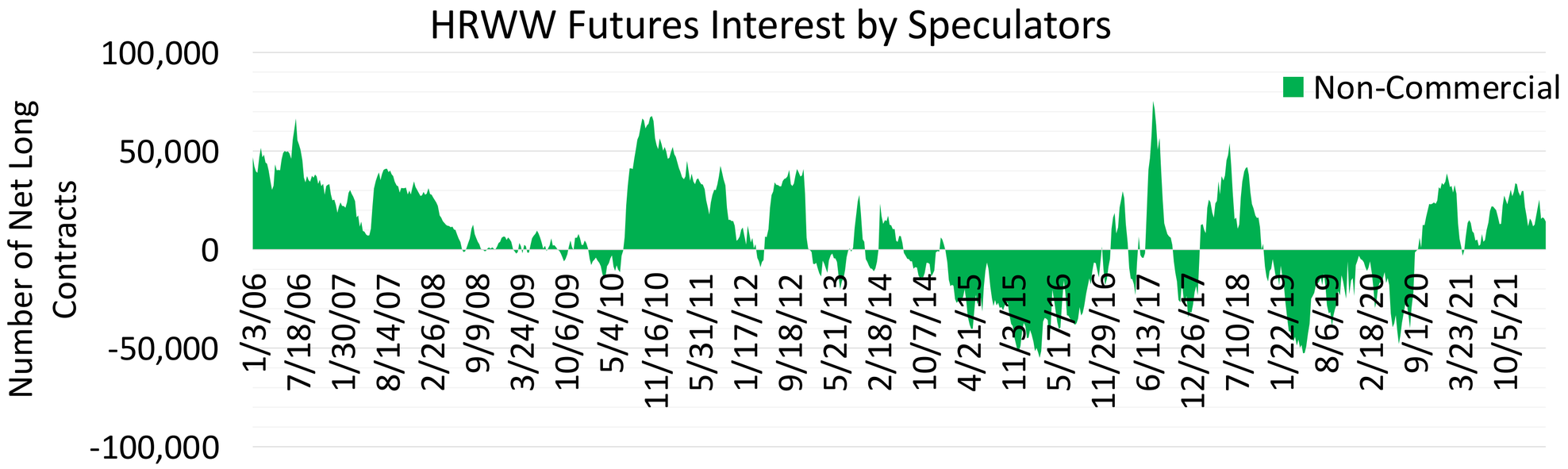
  Hard Red Winter Wheat
  Northwest part of NE: -$0.93/bushel
  Expected early summer basis: -$0.70/bushel

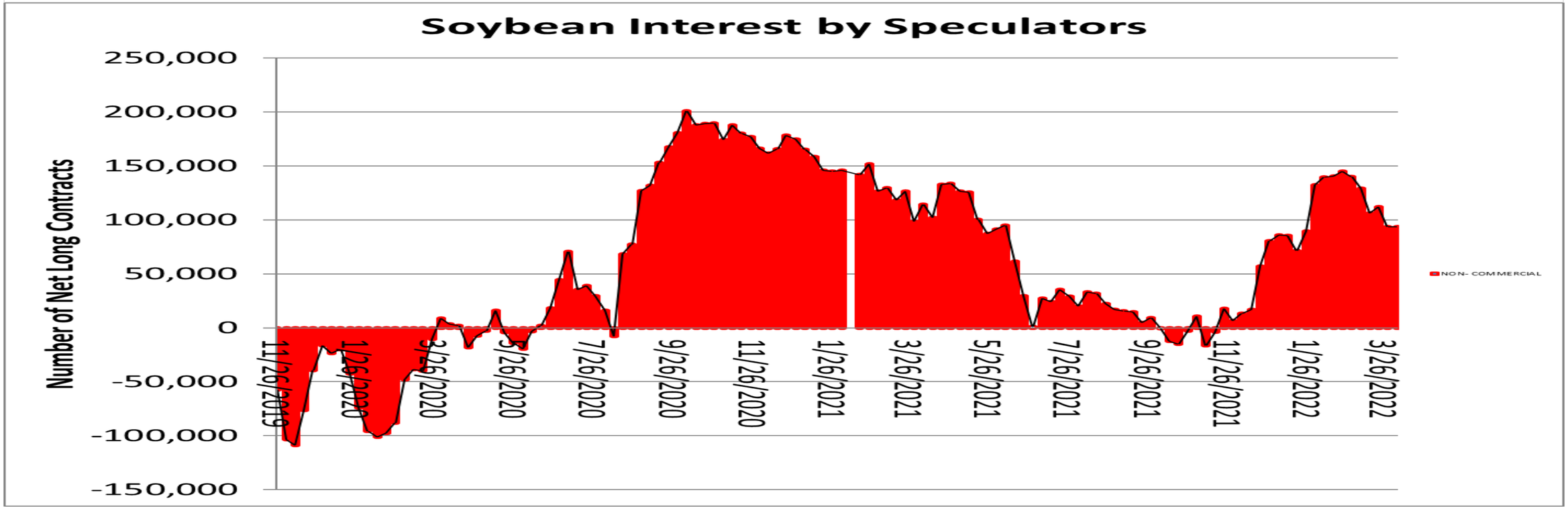
  Soybean
  Eastern part of NE: -$0.60/bushel
  Expected spring basis: -$0.40/bushel



Reflects total number of outstanding contracts and market activity.

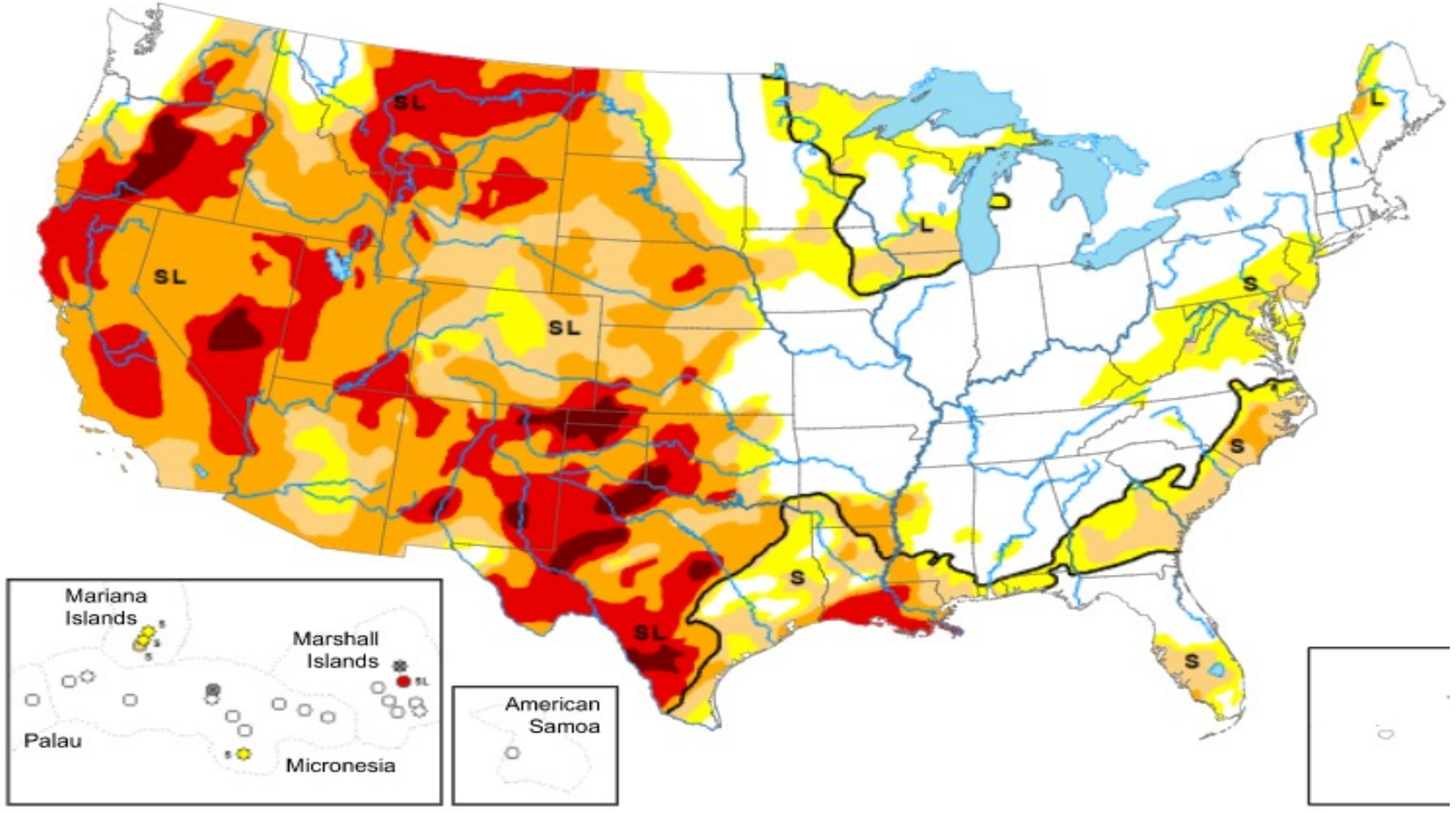
Recent price activity is not being driven by new money entering the market.

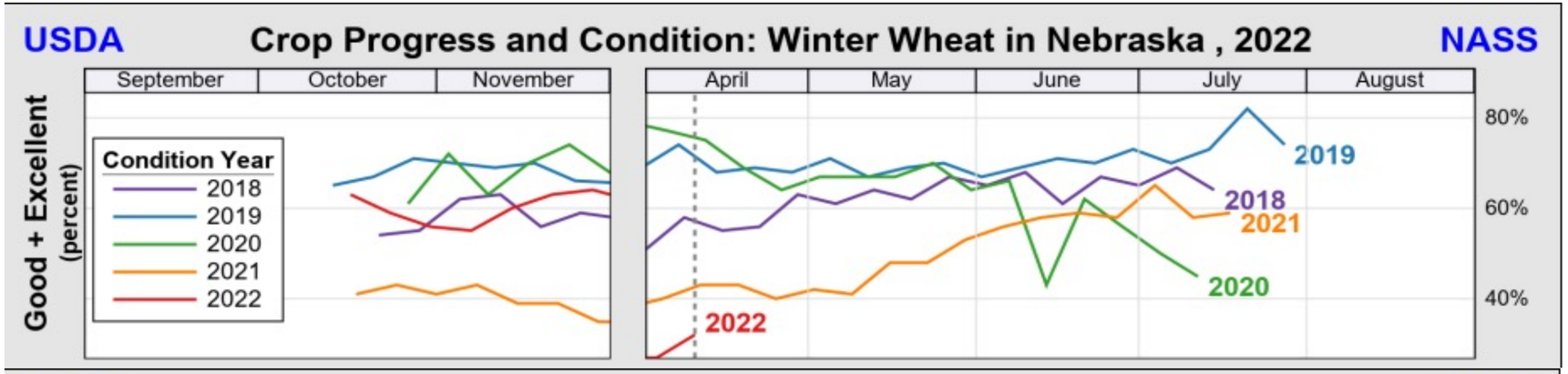

HRWW Futures Interest by Speculators
Number of Net Long Contracts
100,000
50,000
0
-50,000
-100,000
Non-Commercial
1/3/06
7/18/06
1/30/07
8/14/07
2/26/08
9/9/08
3/24/09
10/6/09
5/4/10
11/16/10
5/31/11
1/17/12
9/18/12
5/21/13
2/18/14
10/7/14
4/21/15
11/3/15
5/17/16
11/29/16
6/13/17
12/26/17
7/10/18
1/22/19
8/6/19
2/18/20
9/1/20
3/23/21
10/5/21

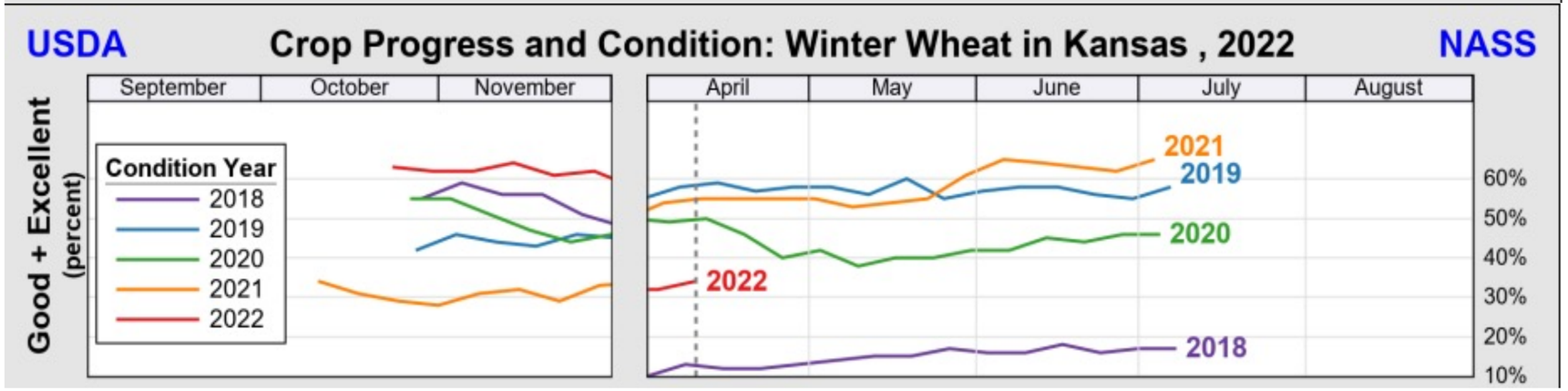

Soybean Interest by Speculators
Number of Net Long Contracts
250,000
200,000
150,000
100,000
50,000
0
-50,000
-100,000
-150,000
NON- COMMERCIAL
11/26/2019
1/26/2020
3/26/2020
5/26/2020
7/26/2020
9/26/2020
11/26/2020
1/26/2021
3/26/2021
5/26/2021
7/26/2021
9/26/2021
11/26/2021
1/26/2022
3/26/2022

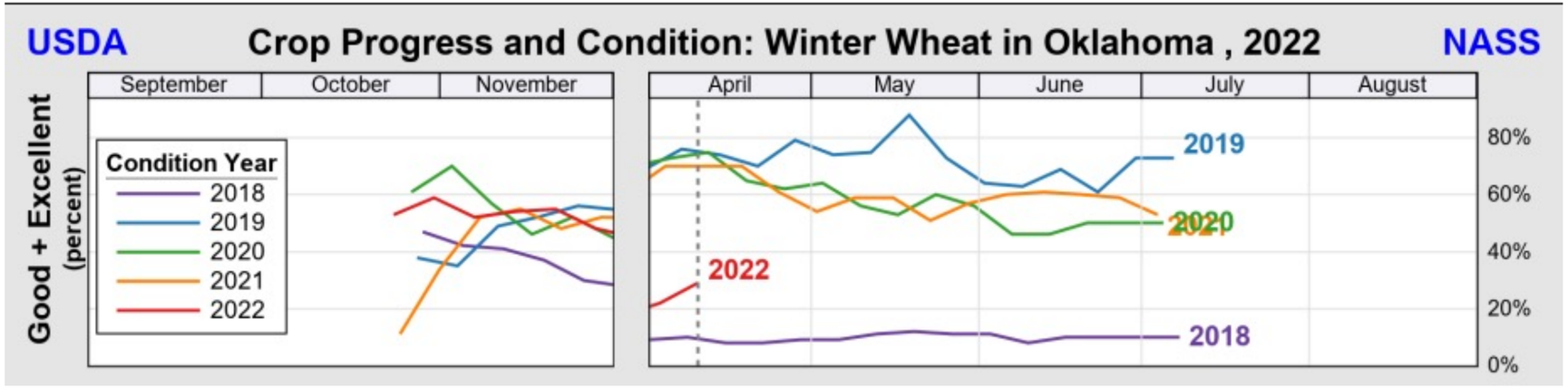
Map released: April 7, 2022

Data valid: April 5, 2022



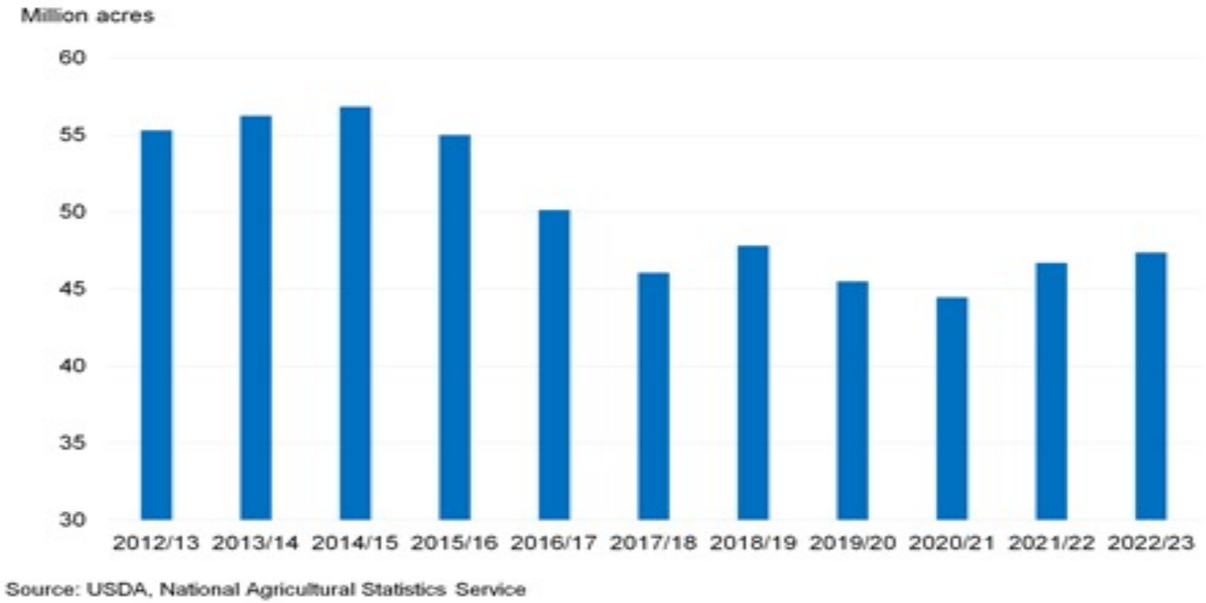

USDA
Crop Progress and Condition: Winter Wheat in Nebraska , 2022
NASS
Good + Excellent (percent)
September
October
November
April
May
June
July
August
Condition Year
2018
2019
2020
2021
2022
80%
60%
40%
2019
2018
2021
2020
2022


USDA
Crop Progress and Condition: Winter Wheat in Kansas , 2022
NASS
Good + Excellent (percent)
September
October
November
April
May
June
July
August
Condition Year
2018
2019
2020
2021
2022
60%
50%
40%
30%
20%
10%
2021
2019
2020
2022
2018


USDA
Crop Progress and Condition: Winter Wheat in Oklahoma , 2022
NASS
Good + Excellent (percent)
September
October
November
April
May
June
July
August
Condition Year
2018
2019
2020
2021
2022
80%
60%
40%
20%
0%
2019
2020
2021
2022
2018

2022/23 Production and Beyond

Figure 1
U.S. all-wheat planted area by marketing year, 2012/13 – 2022/23

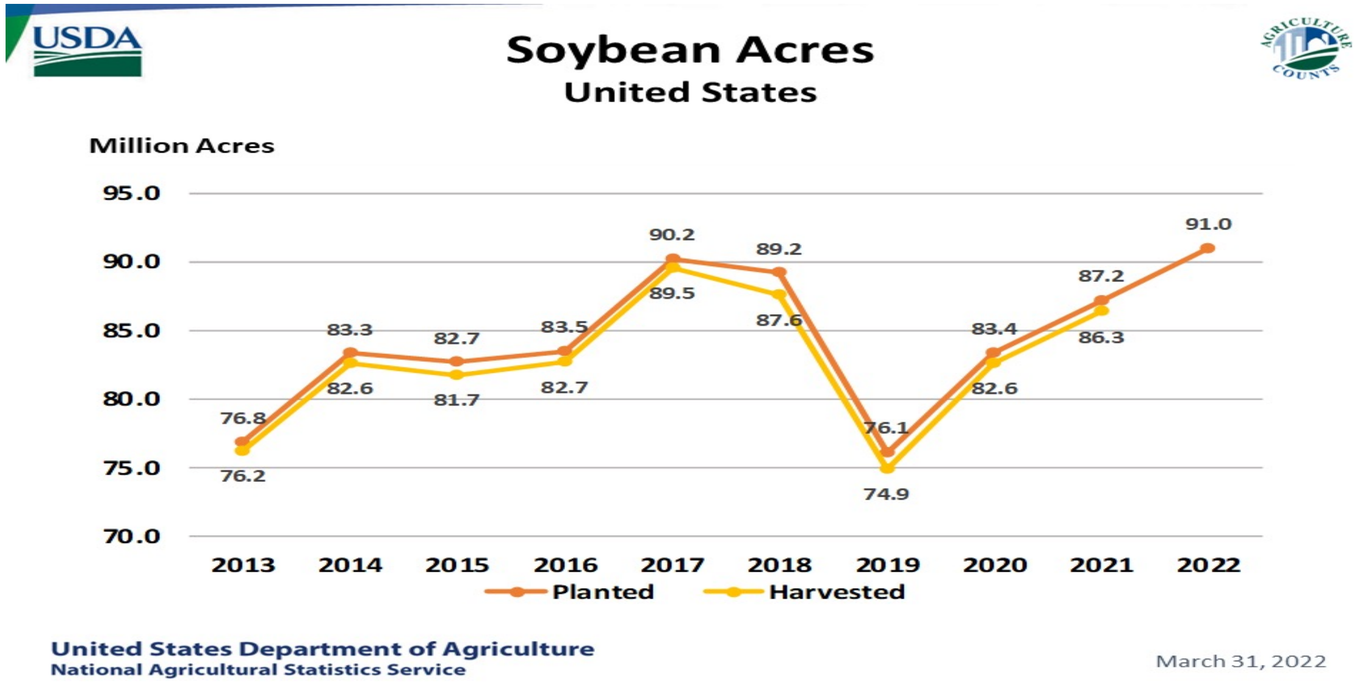


Source: USDA, National Agricultural Statistics Service

KEK22 (May '22)	1162-6
KEN22 (Jul '22)	1167-0
KEU22 (Sep '22)	1166-0
KEZ22 (Dec '22)	1161-0
KEH23 (Mar '23)	1165-6
KEK23 (May '23)	1122-4
KEN23 (Jul '23)	1043-4
KEU23 (Sep '23)	996-0
KEZ23 (Dec '23)	1011-0
KEH24 (Mar '24)	983-6s
KEK24 (May '24)	924-0s
KEN24 (Jul '24)	825-0

- Wheat acreage has been down due to poor economics through low prices and opportunities from competing crops.
- Big rebound for 2023/24 and beyond?
  - July 2023 prices incentivizes additional acres (even after accounting for costs) but what about competing crop prices

2022/23 Production and Beyond



- Continued acreage for 2023/24 and beyond? Uncertain as we need account for corn price

+ ZSY00 (Cash)	1656-0s	+6-0
+ ZSK22 (May '22)	1676-0	-0-2
+ ZSN22 (Jul '22)	1661-4	-3-4
+ ZSQ22 (Aug '22)	1620-2	-4-6
+ ZSU22 (Sep '22)	1541-2	-6-2
+ ZSX22 (Nov '22)	1498-6	-7-0
+ ZSF23 (Jan '23)	1498-4	-6-4
+ ZSH23 (Mar '23)	1480-4	-3-6
+ ZSK23 (May '23)	1478-2	-2-0
+ ZSN23 (Jul '23)	1476-6	-2-4
+ ZSQ23 (Aug '23)	1467-2s	-1-6
+ ZSU23 (Sep '23)	1428-4s	-1-4
+ ZSX23 (Nov '23)	1397-6	-1-0
+ ZSF24 (Jan '24)	1409-6	+8-6
+ ZSH24 (Mar '24)	1394-2s	-2-0
+ ZSK24 (May '24)	1393-4s	-1-6
+ ZSN24 (Jul '24)	1384-2s	-1-6
+ ZSQ24 (Aug '24)	1380-6s	-1-6
+ ZSU24 (Sep '24)	1379-2s	-1-6
+ ZSX24 (Nov '24)	1348-0	+17-0
+ ZSN25 (Jul '25)	1331-0s	+6-2
+ ZSX25 (Nov '25)	1306-0	+3-2

Questions?

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