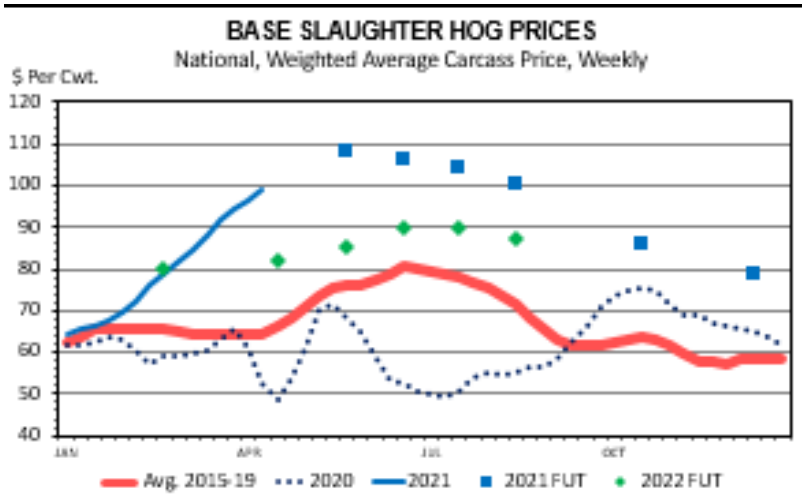


# Swine Prices, Outlook, Marketing, and Price Risk Management



**Tim Petry**

Extension Livestock Marketing Economist

[www.ndsu.edu/livestockeconomics](http://www.ndsu.edu/livestockeconomics)

April 21, 2021

ANSC484 4-21-21.pptx

**NDSU**

Agribusiness and  
Applied Economics

EXTENSION

# Identify Your Market

- Most calves, cull cows and bulls, sheep and lambs, and goats are sold at livestock auction markets
- Most fed cattle and hogs sold directly to packers, feeder pigs to hog finishers, poultry and milk to processors
- Specialty livestock such as breeding livestock, bison, direct to consumers, organic, grass fed, free-range etc. may require you to find and develop markets



Our hogs are humanely raised on small, family farms in the Midwest.



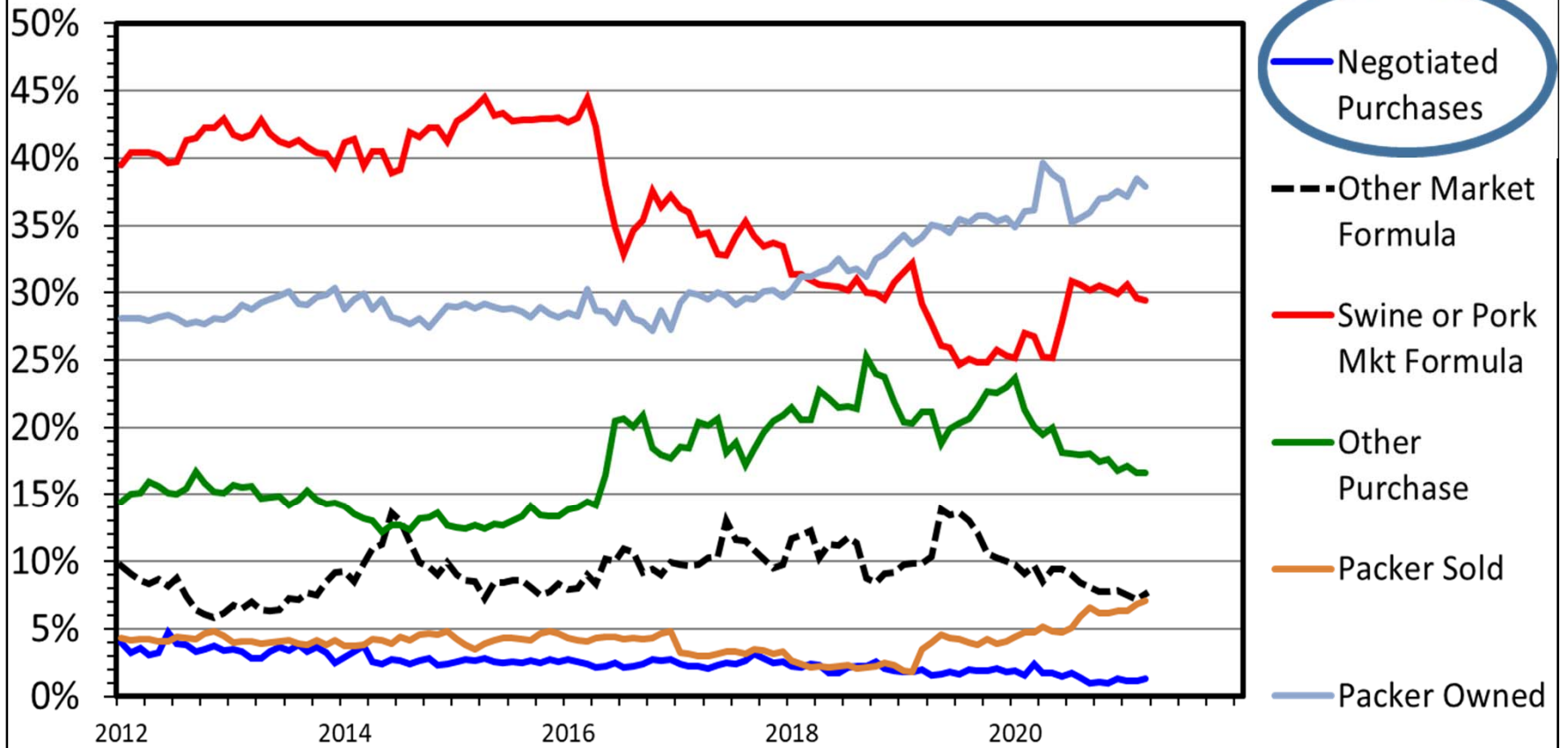
Hogs Every THIRD Monday

**Smithfield**  
Fergus Falls MN

# HOGS SOLD BY TRANSACTION

National, Monthly

Percent

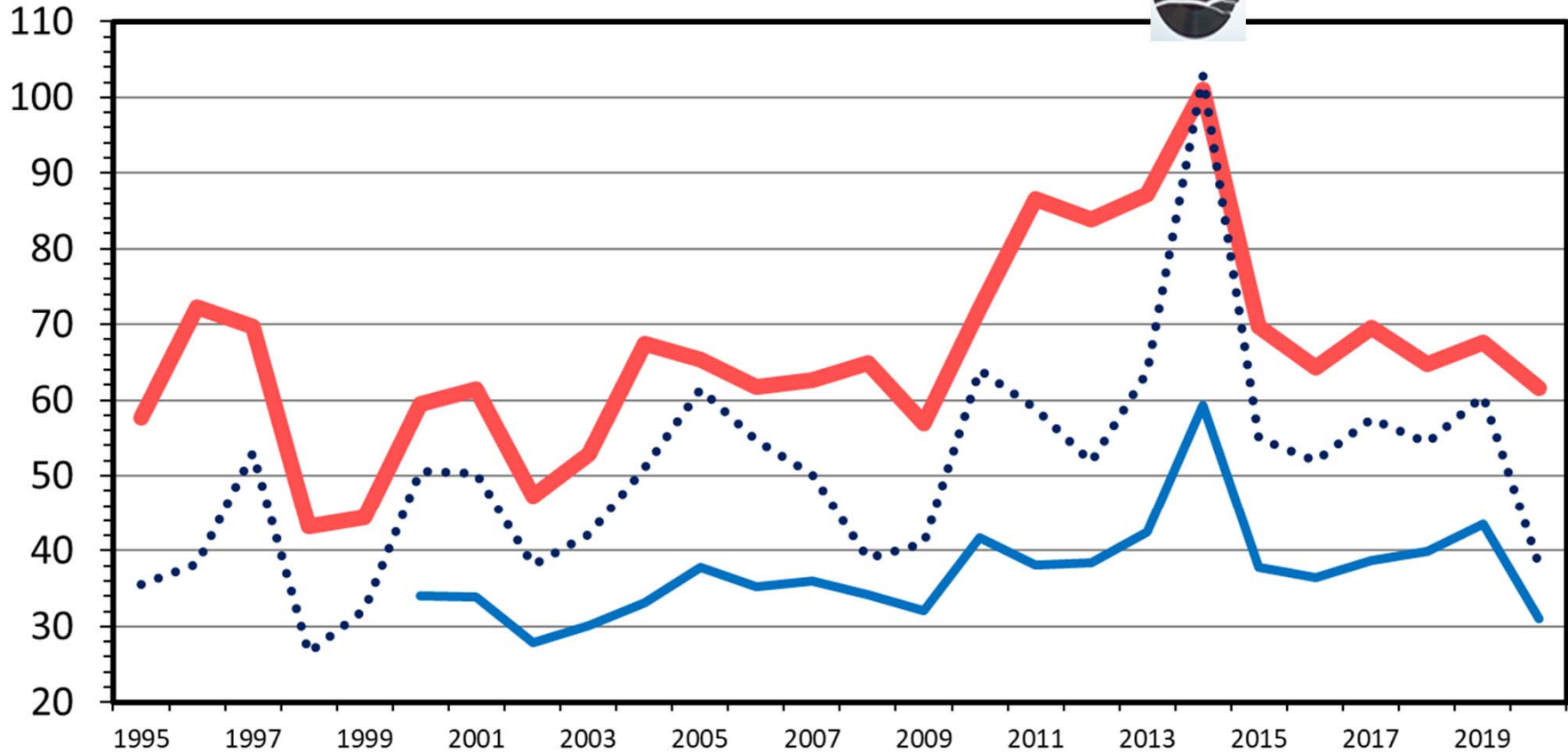


# ANNUAL AVERAGE HOG PRICES

National



Dollars



— Slaughter Hog (\$/cwt) ···· 40 Lb Feeder Pig (\$/Hd) — 10-12 Lb Feeder Pig (\$/Hd)

# World Agricultural Supply and Demand Estimates

## U.S Meat Production and Prices

	2014	2015	2016	2017	2018	2019	2020	2021 Forecast
<b>Production</b>	<i>Billion Pounds</i>		<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Beef	24.25	23.70	25.22	26.19	26.87	27.15	27.15	27.64
Pork	22.84	24.50	24.94	25.58	26.31	27.64	28.30	28.28
Broilers	38.55	40.05	40.7	41.66	42.60	43.91	44.58	44.78
Turkey	5.76	5.63	5.98	5.98	5.88	5.82	5.74	5.66
<b>Total meat</b>	<b>92.17</b>	<b>94.63</b>	<b>97.6</b>	<b>100.17</b>	<b>102.43</b>	<b>105.26</b>	<b>106.53</b>	<b>107.09</b>
<b>Prices</b>	<i>Dollars/cwt</i>		<i>Dollars/cwt.</i>				<i>Dollars/cwt.</i>	
Steers	154.56	148.12	120.85	121.52	117.12	116.78	108.51	116.25
Hogs	76.03	50.23	46.16	50.48	45.93	47.95	43.18	65.68
	<i>Cents/lb.</i>		<i>Cents/lb.</i>				<i>Cents/lb.</i>	
Broilers	104.9	90.5	84.3	93.5	97.8	88.6	73.20	84.7
Turkey	107.6	116.2	117.1	96.1	80.2	89.2	106.5	111.8

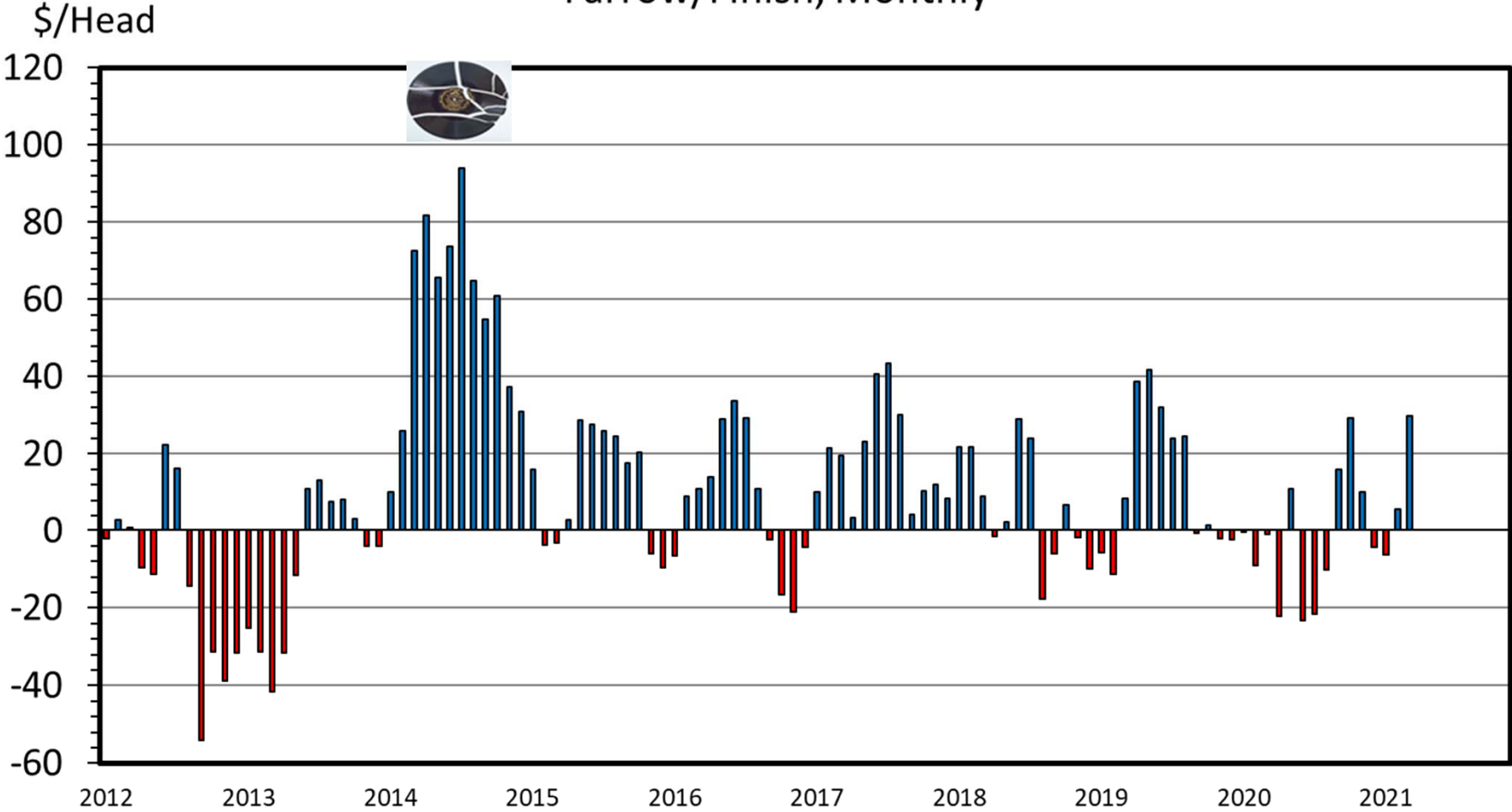
 record high

Apr. 9, 2021



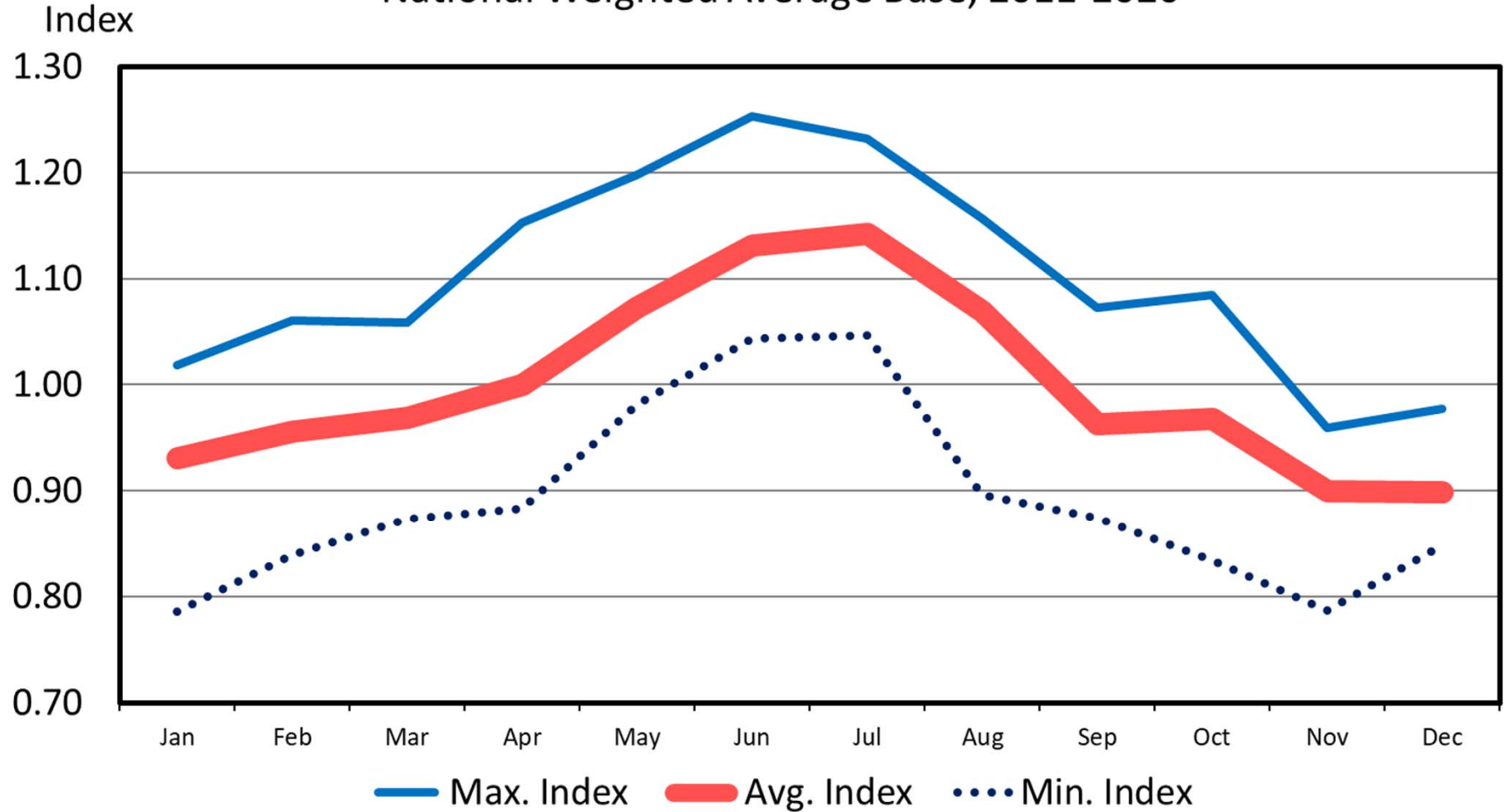
# IOWA MARKET HOG PROFIT

Farrow/Finish, Monthly



# SEASONAL PRICE INDEX – SLAUGHTER HOGS

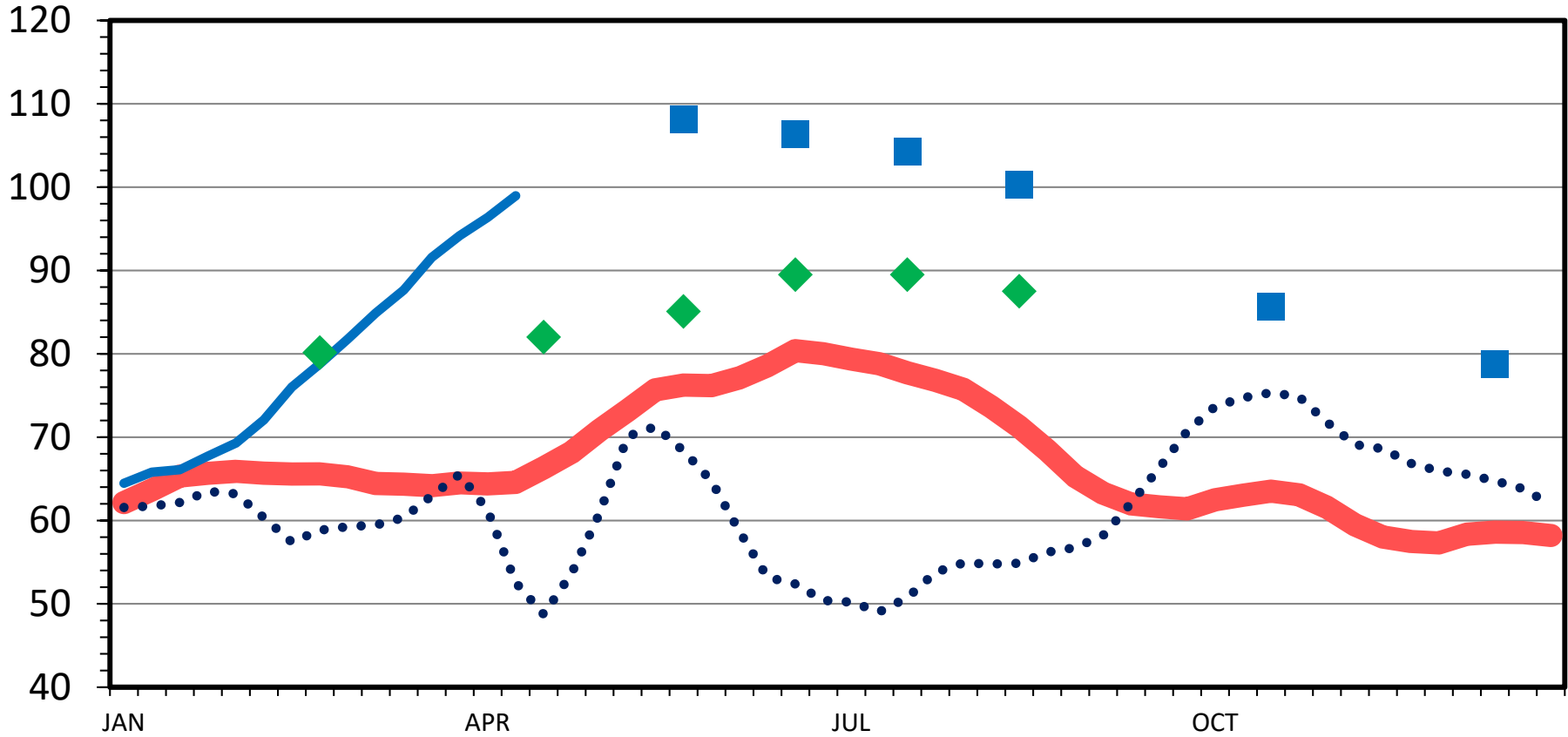
National Weighted Average Base, 2011-2020



# BASE SLAUGHTER HOG PRICES

National, Weighted Average Carcass Price, Weekly

\$ Per Cwt.

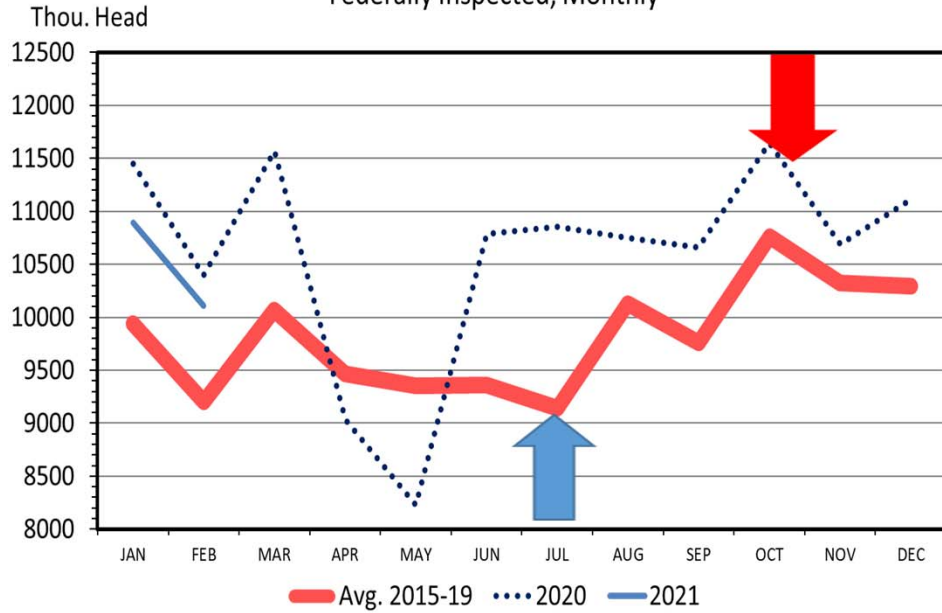


— Avg. 2015-19    ···· 2020    — 2021    ■ 2021 FUT    ◆ 2022 FUT



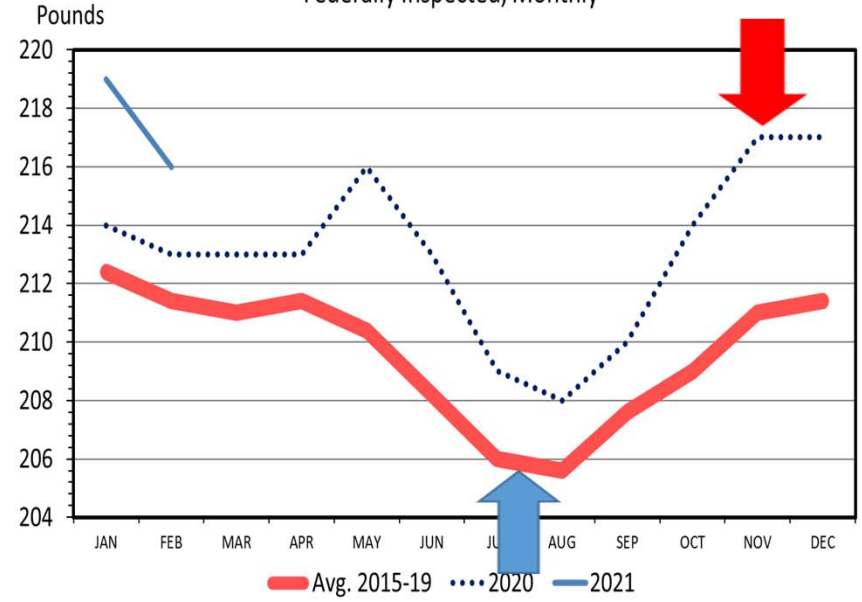
### BARROW AND GILT SLAUGHTER

Federally Inspected, Monthly



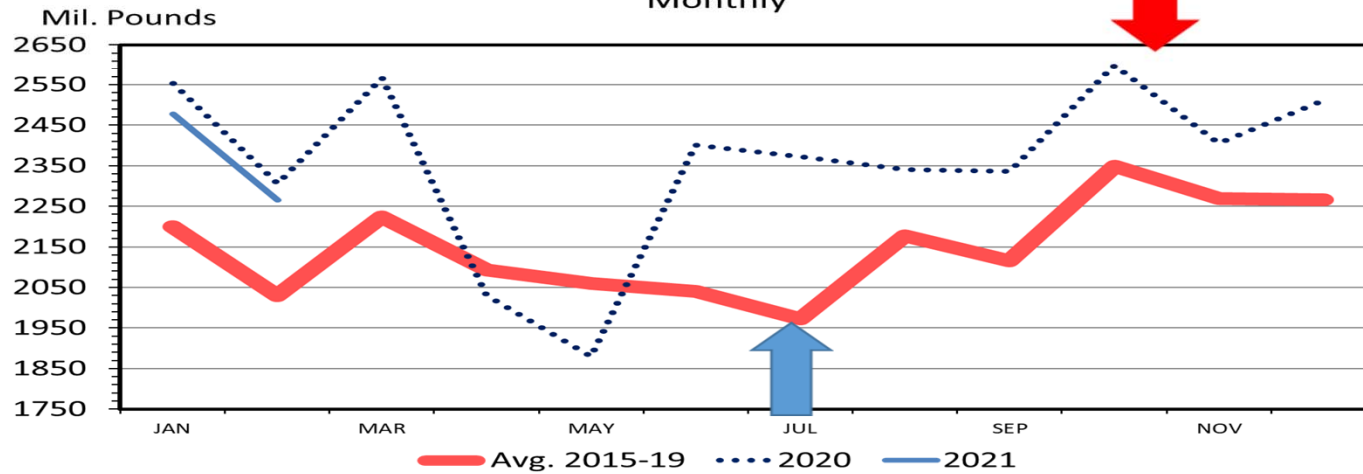
### AVG DRESSED WEIGHT – BARROWS & GILTS

Federally Inspected, Monthly



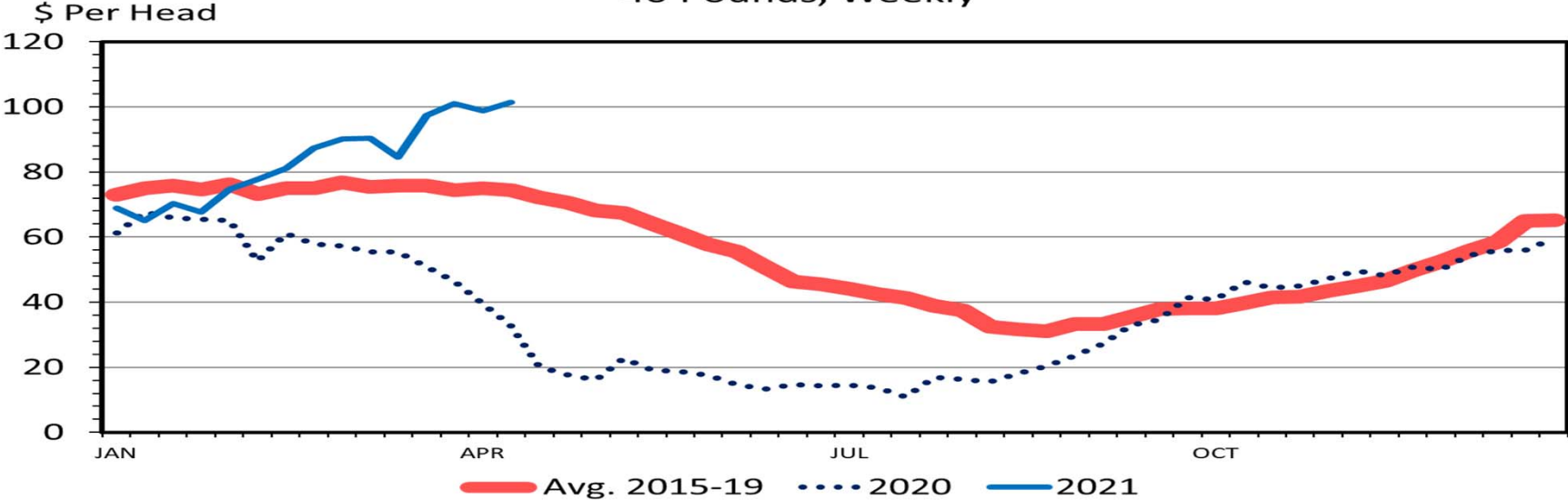
### COMMERCIAL PORK PRODUCTION

Monthly



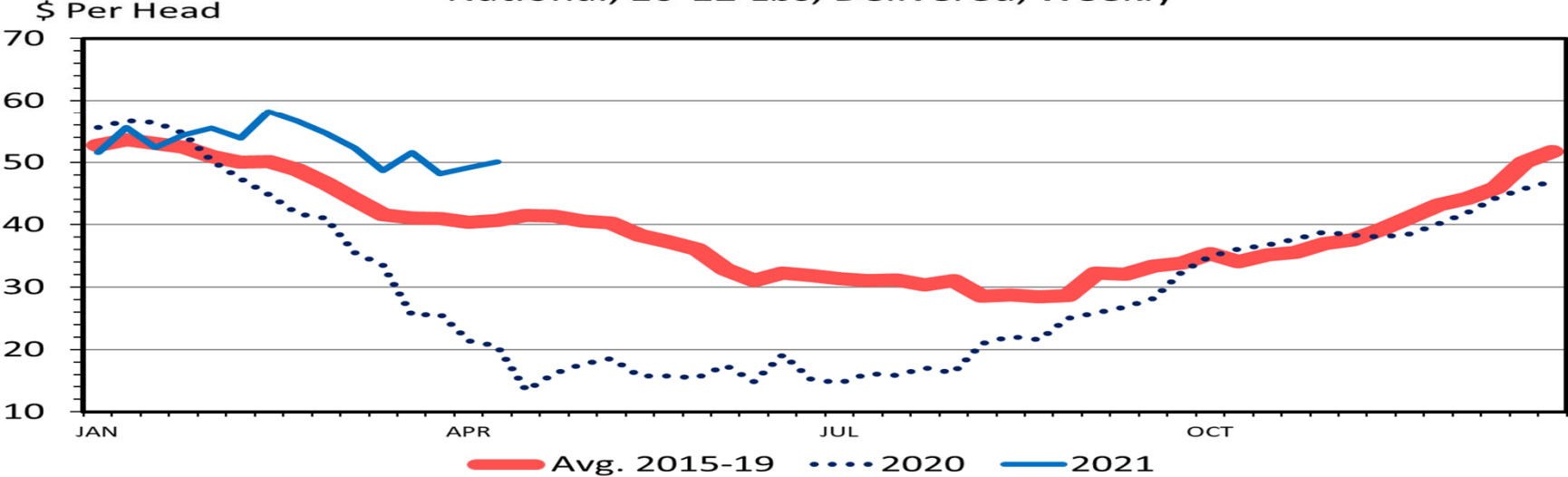
### FEEDER PIG PRICES

40 Pounds, Weekly

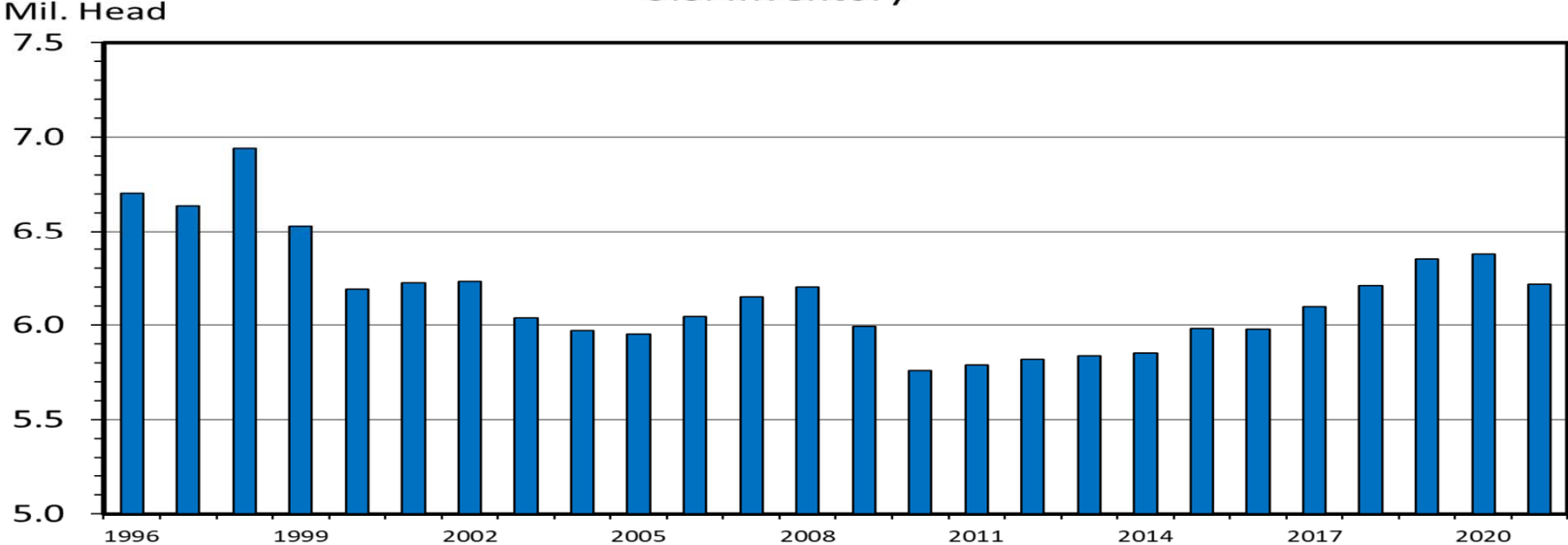


### EARLY WEANED PIG PRICES

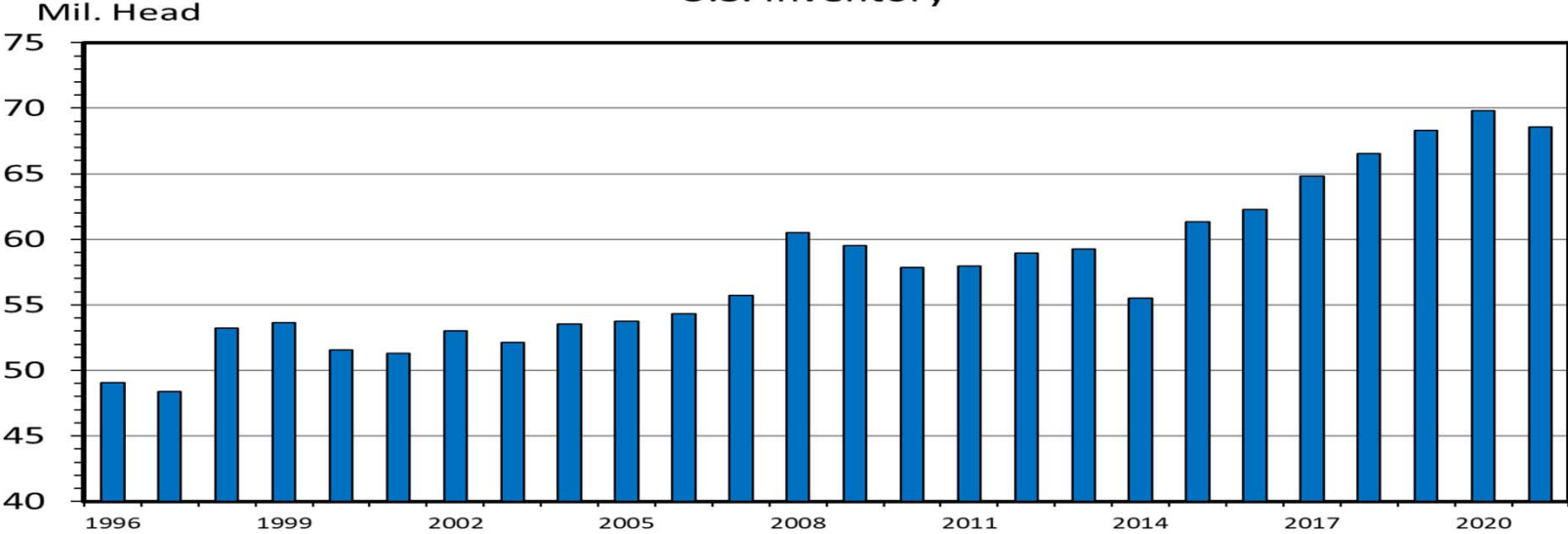
National, 10-12 Lbs, Delivered, Weekly



# MARCH 1 HOG BREEDING HERD U.S. Inventory

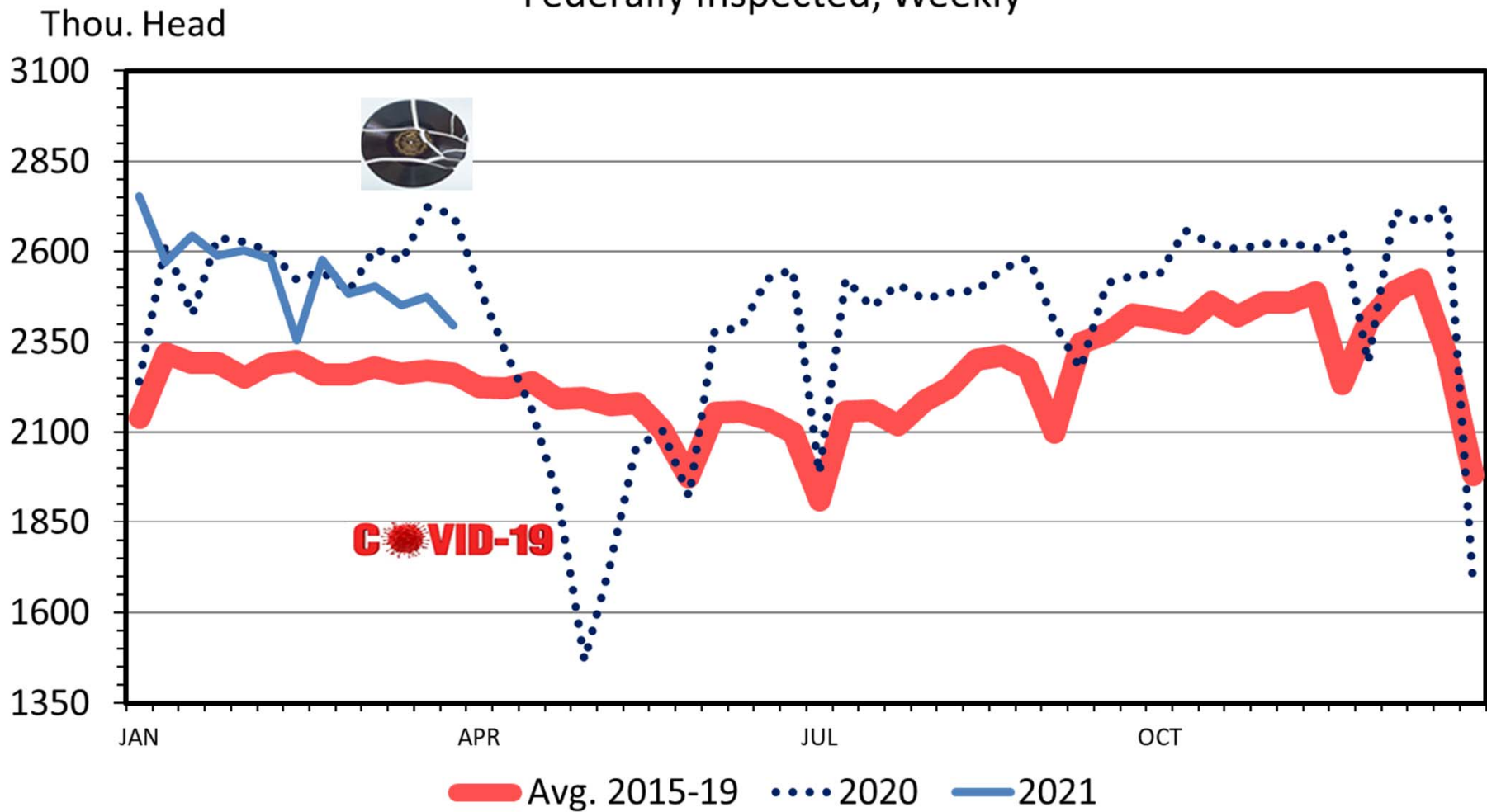


# MARCH 1 MARKET HOGS U.S. Inventory



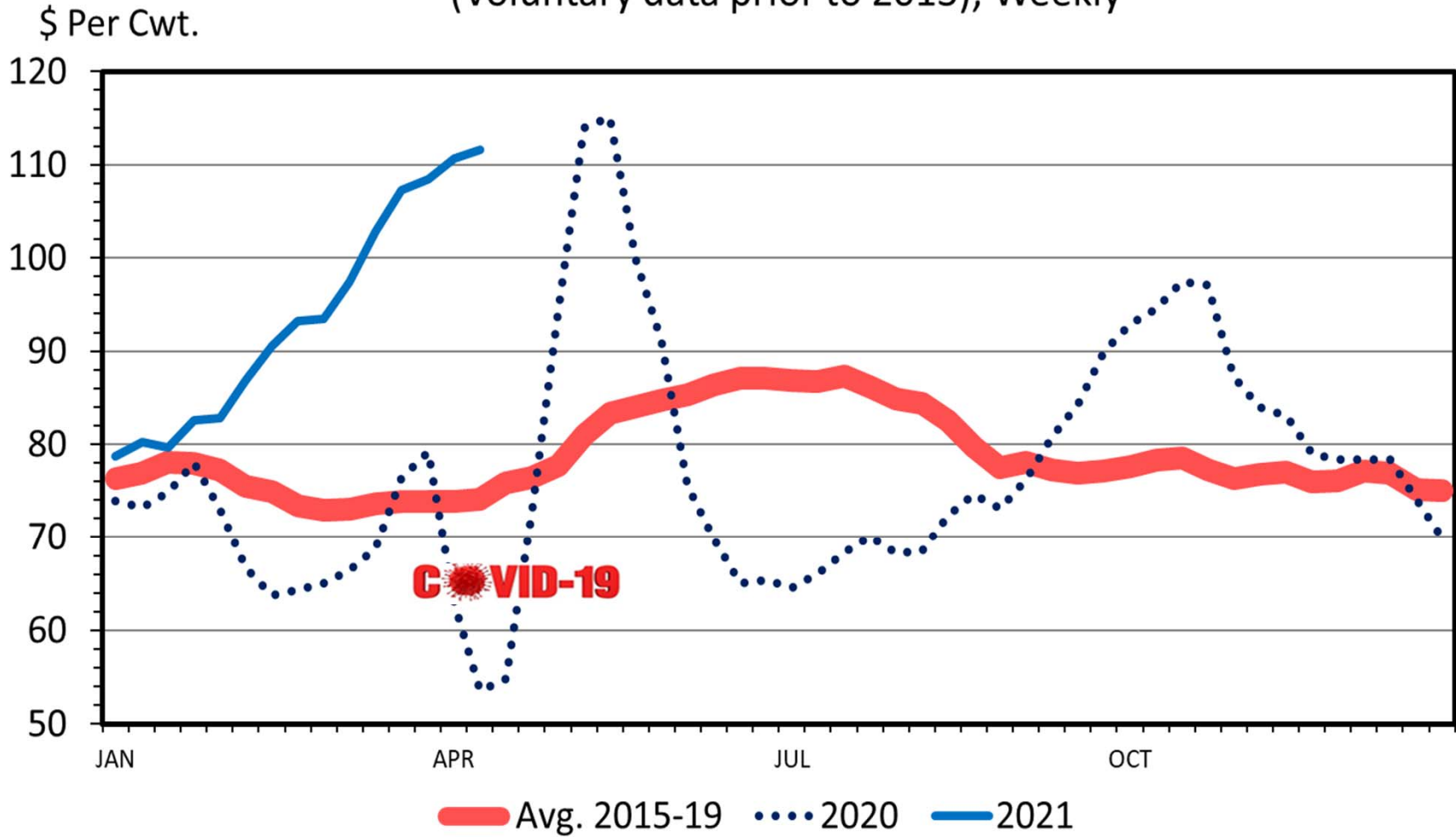
# BARROW AND GILT SLAUGHTER

Federally Inspected, Weekly



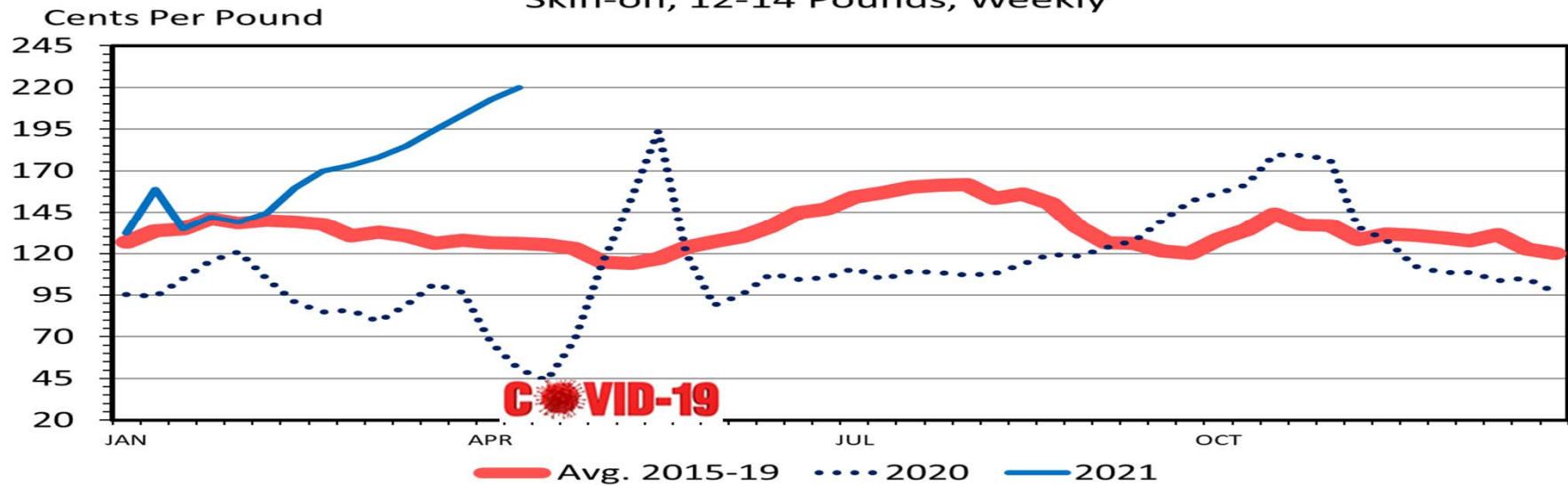
# PORK CUTOUT VALUE

(Voluntary data prior to 2013), Weekly



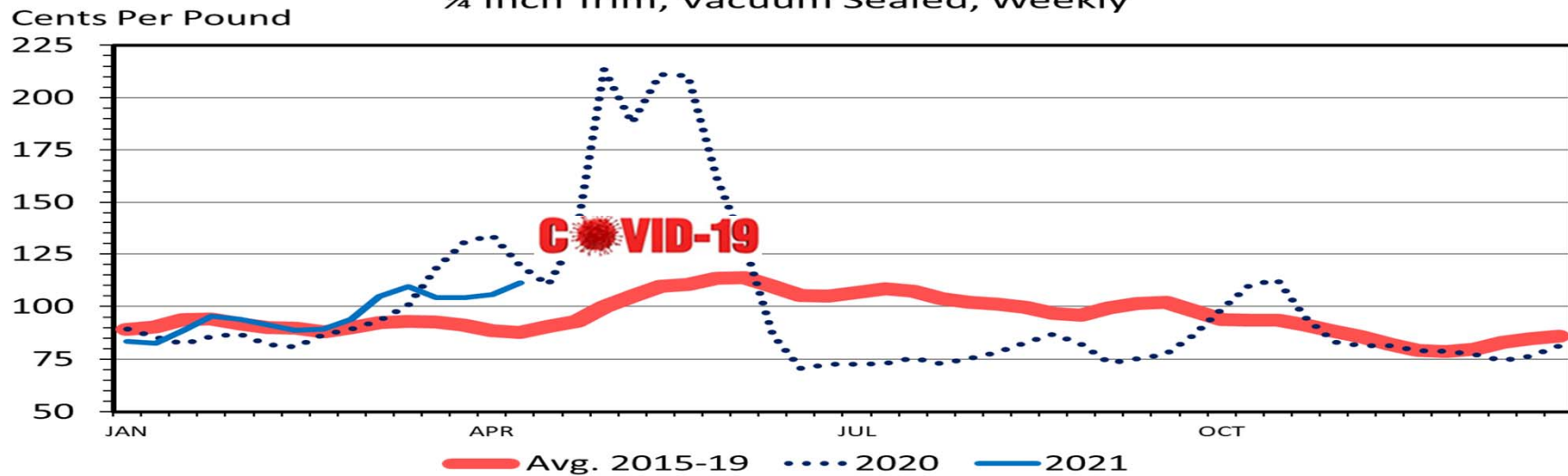
## WHOLESALE PORK BELLY PRICES

Skin-on, 12-14 Pounds, Weekly



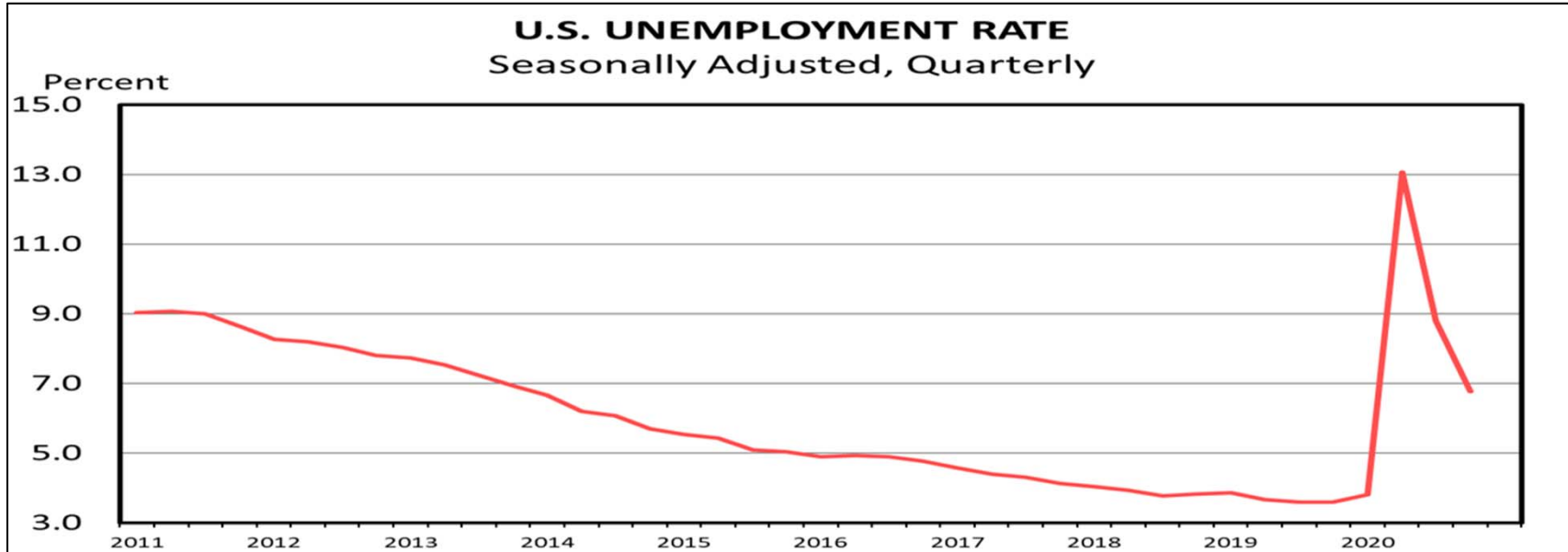
## WHOLESALE PORK LOIN PRICES

¼ Inch Trim, Vacuum Sealed, Weekly





# US ECONOMY?



## Dow Jones Industrial Average



High 34200.67 on Apr 16, 2021

Low 23018.88 on Apr 21, 2020

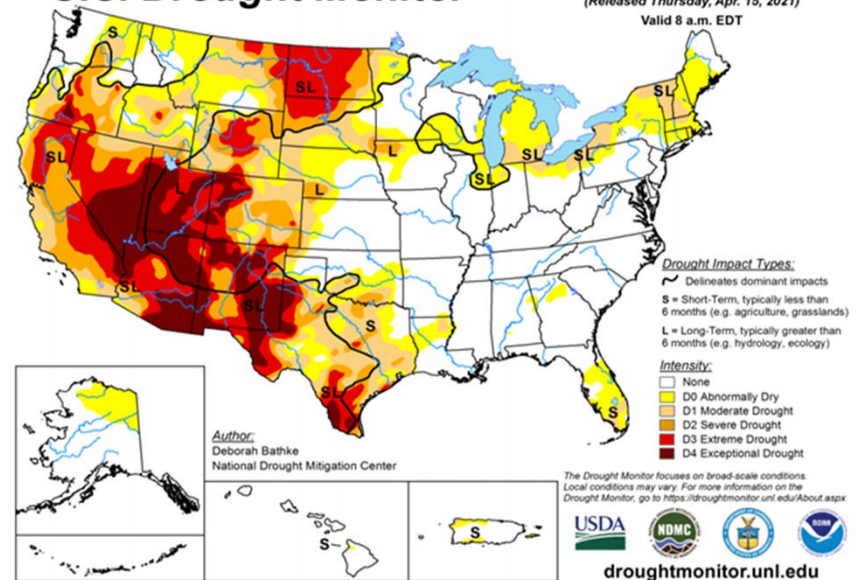
# CORN PRICES INCREASING PRODUCTION COSTS

## MAY CORN FUTURES



## U.S. Drought Monitor

April 13, 2021  
(Released Thursday, Apr. 15, 2021)  
Valid 8 a.m. EDT



	Week Ending April 9, 2021	Week Ago	Month Ago	Year Ago
<b>Feed Cost</b>				
For this Week's Finishing Placement	98.04	97.80	95.17	63.13
Against this Week's Marketing	79.31	80.32	77.37	69.82
<b>Total Cost</b>				
For this Week's Finishing Placement	159.71	159.46	156.81	124.47
Against this Week's Marketing	140.80	141.82	138.84	126.57
<b>Calculated Breakeven Price</b>				
For this Week's Finishing Placement	73.94	73.82	72.60	59.56
Against this Week's Marketing	65.18	65.66	64.28	59.70

# Global Market Report

Price as of April 14th , 2021

Domestic price (own currency)

US dollars  
(Liveweight/lb.)

USA (Iowa-Minnesota) [Weighted Avg.]	102.56	USD/100 lb. carcass		75.89 c
Canada (Ontario) [Base Price]	232.87	CAD/100 kg carcass		67.52 c
Mexico	38.76	MXN/kg liveweight		87.65 c
Brazil (South Region)	6.85	BRL/kg liveweight		54.81 c
Russia	106.60	RUB/kg liveweight		63.77 c
China	24.49	CNY/kg liveweight	\$	1.70
Spain	1.460	EUR/kg liveweight		79.35 c
France	1.397	EUR/kg carcass		64.74 c
United Kingdom	141.74	GBP/100 kg carcass		70.90 c
Vietnam (national average)	74,000	VND/kg liveweight	\$	1.46
South Korea (national average)	5,155	KRW/kg carcass	\$	1.61

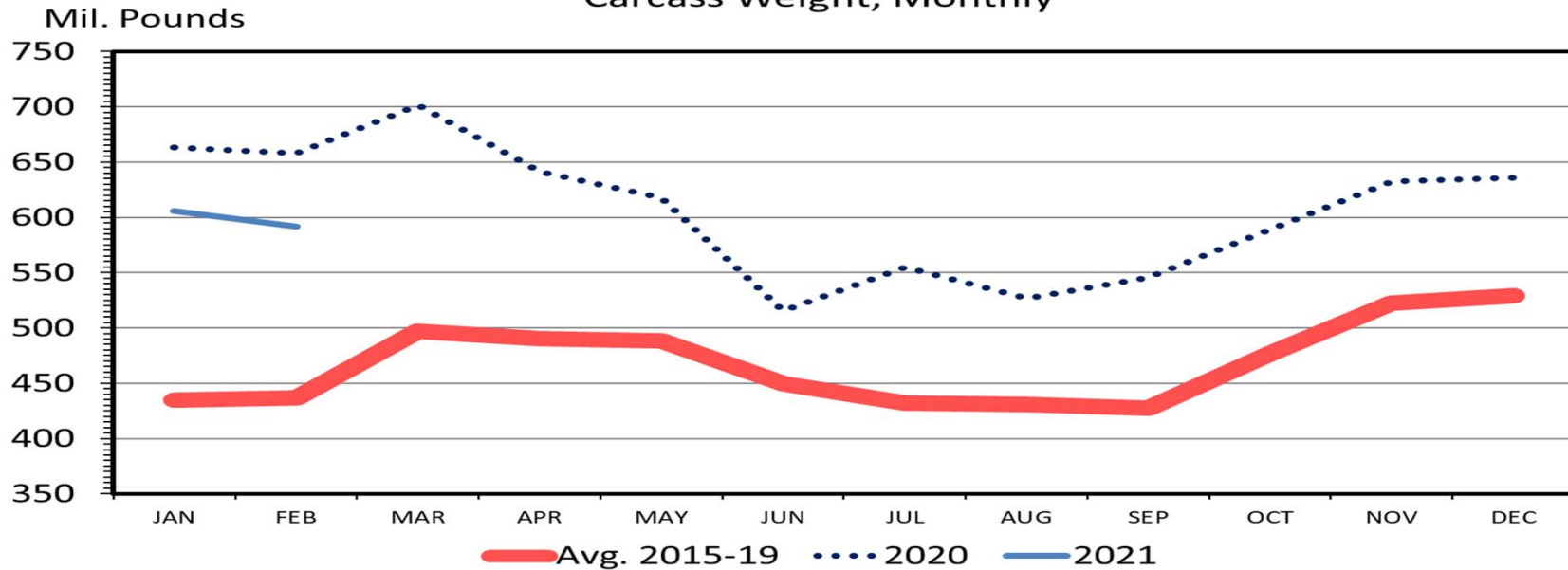
**Sargent County, ND- Finish 4800 head/year**



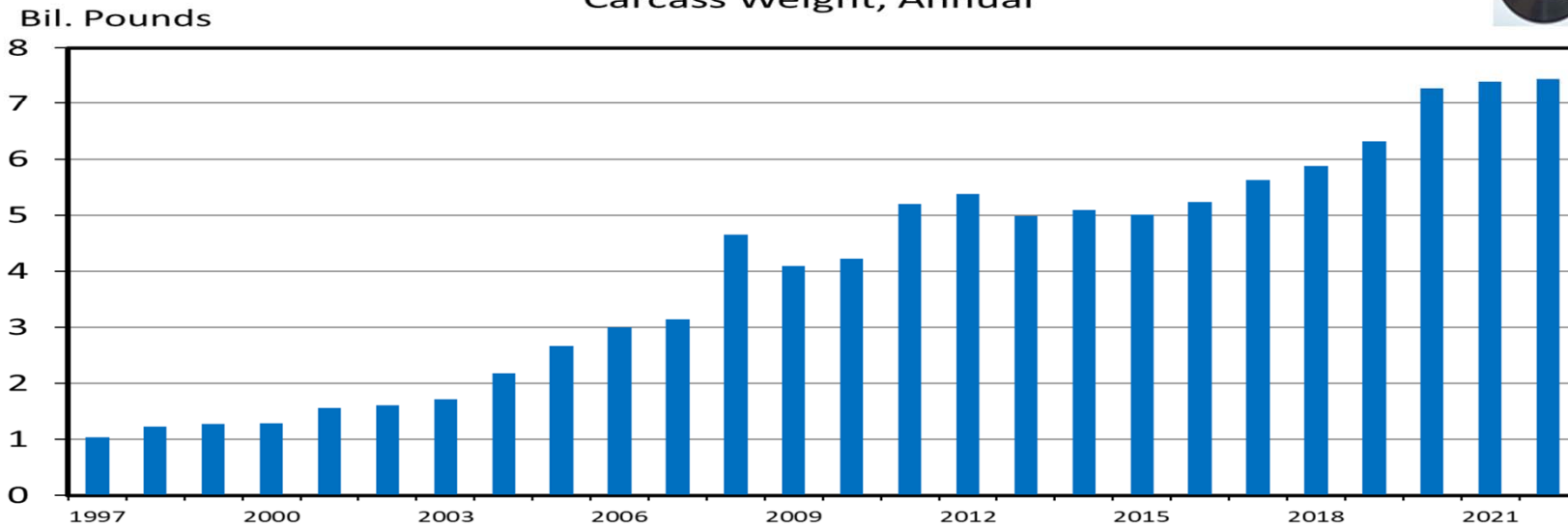
**China- 84,000 sows finishing 2.1 million/year**



## US PORK EXPORTS Carcass Weight, Monthly



## U.S. PORK EXPORTS Carcass Weight, Annual





# U.S. Ranking in World





# Major U.S. Meat Export Customers

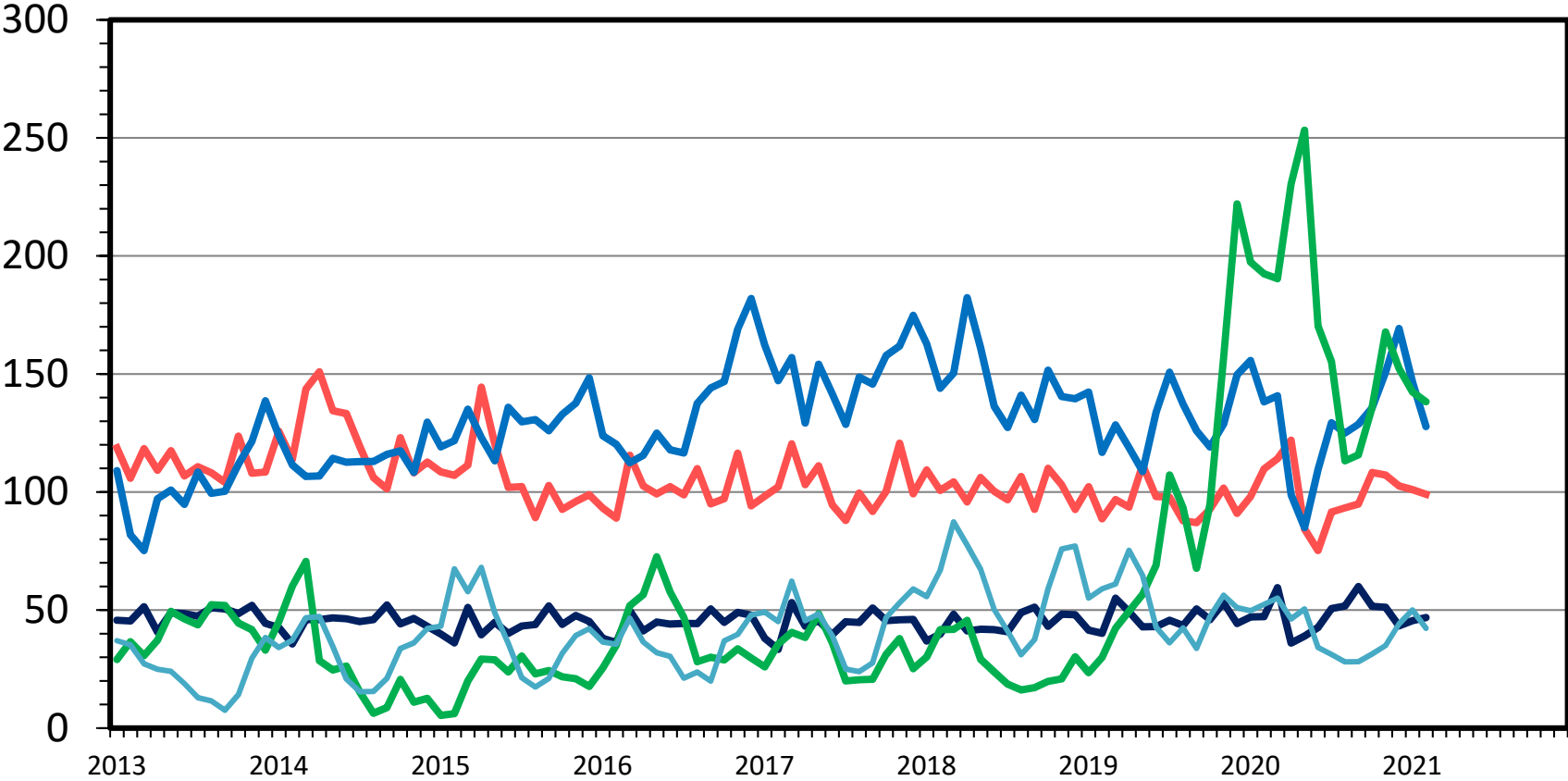
BEEF	PORK	CHICKEN
Japan	Mexico	Mexico
Korea	Japan	Canada
Mexico	Canada	Cuba
Canada	China	Hong Kong
Hong Kong	Korea	Taiwan
China?	Australia	China <del>Ø</del>



# US PORK EXPORTS TO MAJOR MARKETS

Carcass Weight, Monthly

Mil. Pounds



— Japan — Canada — Mexico — China-Mainland — South Korea

# HINDSIGHT IS 2020 BUT 2021?



African Swine Fever

Record Meat Production



Exports



Trade Agreements



Drought/Blizzards/Floods

Corn Prices

Consumer Demand

COMPETING MEATS

# Price Risk Management Tools

- Formula and forward contracts
- CME futures
- CME options
- Livestock Risk Protection (LRP)
- Which one or combination fits your marketing plan?
- “If you don’t manage risk, risk will manage you”

# PICK YOUR POISON

Cash

Forward Contract

LRP

Futures/Options

Easy



Difficult

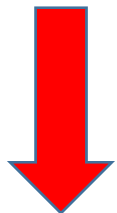


# Which Is Best?

Depends on expected price trend



Uptrend: cash market



Downtrend: futures  
forward contract



?: options or LRP  
(will always be 2<sup>nd</sup> best)





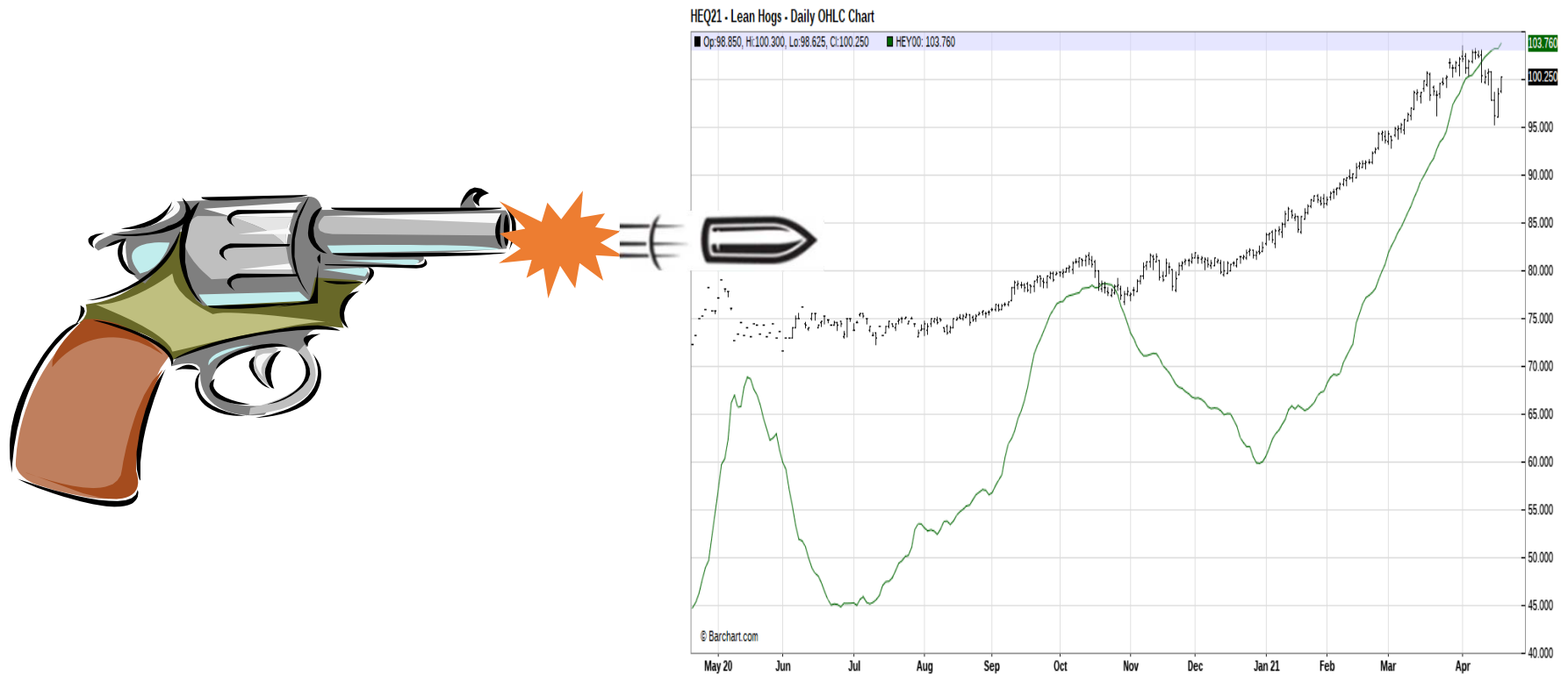
# LEAN HOG FUTURES

- Hog carcasses in packer base weight range
- 40,000 lbs., 400 cwt.
- Feb, Apr, May, Jun, Jul, **Aug**, Oct, Dec

HEQ21 - Lean Hogs - Daily OHLC Chart



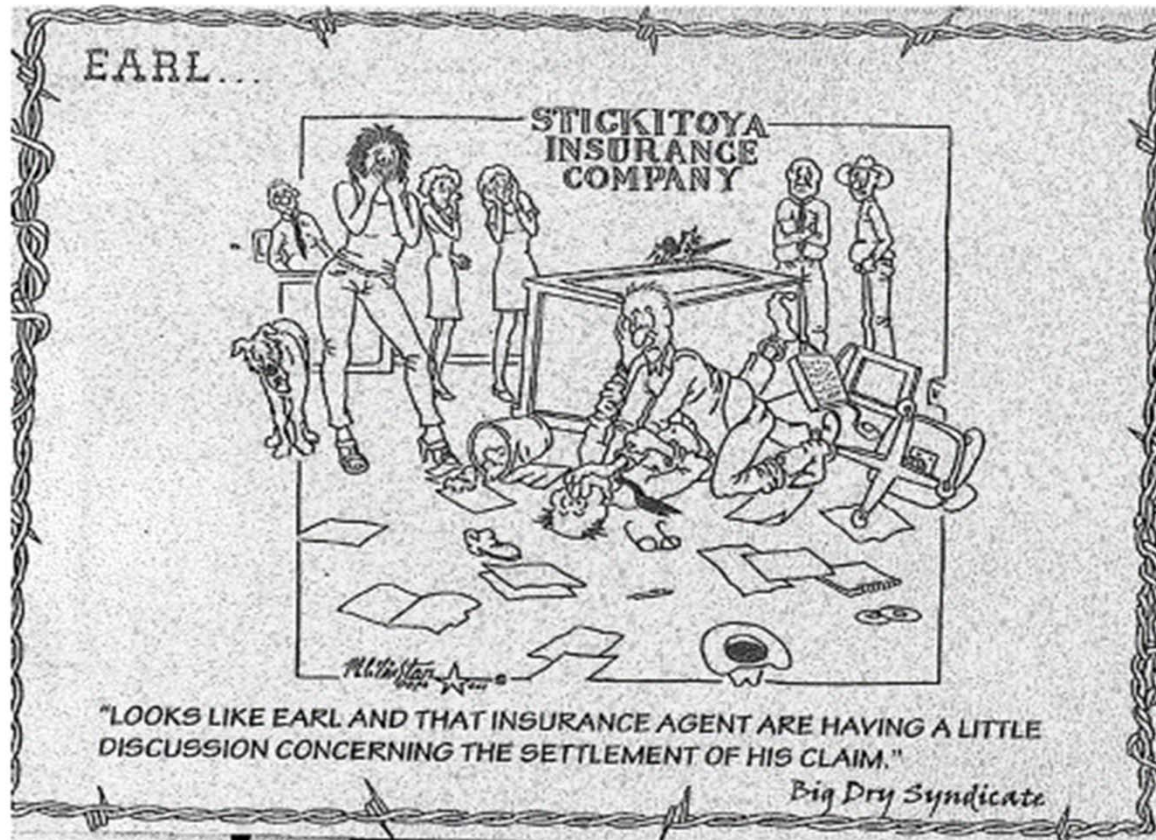
# When should I pull the trigger?



Most difficult part of using Futures and Options

Is there something easier?

# LRP – revenue insurance program that is reinsured and subsidized by the Federal Crop Insurance Corporation (FCIC)



# LRP

- Insures against price declines with floor price
- Similar to put options
- Premium is subsidized
- Sold by livestock (crop) insurance agents who do not have to offer
- List of approved agents at:

[www.rma.usda.gov/en/Information-Tools/Agent-Locator-Page](http://www.rma.usda.gov/en/Information-Tools/Agent-Locator-Page)

# LRP

## Advantages

- Small numbers can be hedged
- Premium subsidized 35-55%
- No brokerage or margin
- Receive higher prices in bull market
- Available in months where no futures/options
- All coverage prices available daily
- **GOOD WAY TO LEARN ABOUT PRICE RISK MGMT**

## Disadvantages

- Not flexible like futures and options

# LRP CONTRACTS

- Feeder Cattle (beef, dairy, Brahman)
  - Under 600 lbs
    - Beef steers or heifers
  - 600 to 900 lbs.
    - Beef steers or heifers
- Fed cattle
- Swine
- Lambs-temporarily unavailable





# Steps to LRP

1. Submit eligibility application form with insurance agent
2. Select a policy (coverage prices and premiums are available **after 3:30 PM** (CST) except holidays)
  1. Number of head
  2. Policy length closest to marketing date
  3. Estimated average market weight
  4. Choose coverage price
3. Pay premium to agent
4. Agent submits SCE form electronically (hours are between **4 PM and 9 AM** (CST), Tues-Sat only)

## Insurance Period

Policies **may** be available for the following weekly lengths:

13, 17, 21, 26, 30, 34, 39, 43, 47, 52

3/15/2022

## Policy Size

- **One** up to 40,000 head per policy
- 150,000 maximum per year (July 1 – June 30)

# LRP – Swine

- Based on Chicago Mercantile Exchange (CME) lean hog price index which is available at [www.cmegroup.com](http://www.cmegroup.com)
- Current Index - **\$103.76**

CME LEAN HOG INDEX  
Fri, 04/16/21

Date	Day	Negot. Head Count	Negot. Average Net Price	Negot. Average Carc. Wt	SPMF Head Count	SPMF Average Net Price	SPMF Average Carc. Wt	Negot. Head Count	SPMF Average Net Price	SPMF Average Carc. Wt	Daily Weighted Price	CME Lean Hog Index	Net Change
04/16/21	Fri	7,215	103.51	207.40	149,517	104.32	215.52				104.28	103.76	0.52
04/15/21	Thu	5,774	102.76	202.15	132,274	103.19	215.76				103.17		



## National Daily Direct Hog Prior Day Report - Slaughtered Swine

Agricultural Marketing Service  
Livestock, Poultry, and Grain Market News

April 20, 2021  
[LM HG201](#)

[/www.ams.usda.gov/mnreports/ams\\_2511.pdf](http://www.ams.usda.gov/mnreports/ams_2511.pdf)

# CME LEAN HOG CASH INDEX PRICE

HEY00 - Lean Hogs - Daily Line Chart





# **NEW Premium Subsidy Rates**

Coverage Level %

Subsidy Rate %

95-100

35

90-94.99

40

85-89.99

45

80-84.99

50

70-79.99

55

**Effective 9-14-2020/Retroactive to 7-1-2020**

**(13% Subsidy for many years)**



# Beginning Farmer

- 10% additional premium subsidy
- 5 yr. or less actively raising livestock
- Does not include years when
  - under 18
  - full time military
  - post-secondary education



# Coverage Prices and Rates

Change daily and are posted on the USDA Risk Management Agency (RMA) web site

<https://public.rma.usda.gov/livestockreports/main.aspx>

Coverage levels will range from 70-100% of expected price

# Risk Management?

**USDA** United States Department of Agriculture  
Risk Management Agency

## SWINE

**35% Subsidy**

LRP Coverage Prices, Rates, and Actual Ending Values - Report for 04/20/2021

**X.65**

State	County	Endorsement Length	Commodity	Type	Practice	Crop Year	Exp. End Value	Coverage Price	Coverage Level	Rate	Cost Per CWT	End Date
38 North Dakota	998 All Counties	17	0815 Swine	997 No Type Specified	208 Endorsement Ending in August Yr1	2021	96.845	\$95.150	0.982500	0.074272	7.067	08/17/2021
											<b>4.59</b>	
38 North Dakota	998 All Counties	17	0815 Swine	997 No Type Specified	208 Endorsement Ending in August Yr1	2021	96.845	\$93.150	0.961800	0.064970	6.052	08/17/2021
											<b>3.93</b>	
38 North Dakota	998 All Counties	17	0815 Swine	997 No Type Specified	208 Endorsement Ending in August Yr1	2021	96.845	\$91.150	0.941200	0.056610	5.160	08/17/2021
											<b>3.35</b>	
38 North Dakota	998 All Counties	17	0815 Swine	997 No Type Specified	208 Endorsement Ending in August Yr1	2021	96.845	\$77.150	0.796600	0.018432	1.422	08/17/2021
											<b>.64</b>	

70-79.99 55

**AUG LN HOG-\$100.25/CME CASH INDEX-\$103.76**

<https://public.rma.usda.gov/livestockreports/main.aspx>

**NDSU**

EXTENSION

# Indemnity

- Payment based on difference between **COVERAGE PRICE (CP)** & actual **CME LEAN HOG INDEX** price (AP)

CP = \$90/cwt

AP = \$80

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\$10/cwt payment

- Producers must submit 04-LRP-Claim Form within 60 days of end of contract

# LRP

## Advantages

- Small numbers can be contracted
- Premium subsidized 35-55%
- No brokerage or margin
- Receive higher prices in bull market
- Available in months where no futures/options
- All coverage prices available daily
- **GOOD WAY TO LEARN ABOUT PRICE RISK MGMT**

## Disadvantages

- Not flexible like futures and options

2021: COVID, China, and Demand  
Causing Volatility and Risk , especially on  
seasonal basis. Flexible marketing plans  
should include risk management tools

