

March 24

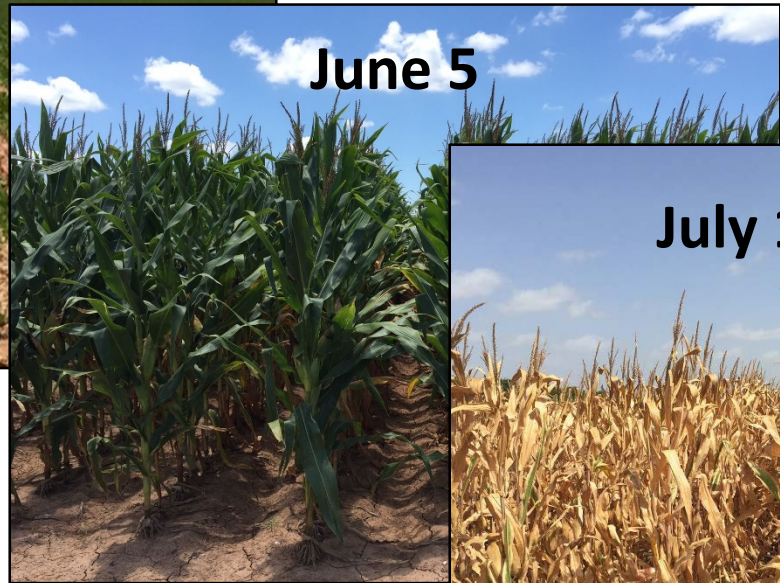


Seasonality

April 5



June 5



July 15



Mark Welch

Grain Marketing

Economist

Texas A&M AgriLife

Extension Service

Seasonal Price Patterns

- **Cash Seasonals**
 - Supply and demand based
 - Cash - Weaning, grazing
 - Crops - Harvest
 - Can you modify production plans to take advantage?
- **Contract Seasonals**
 - Eventually tied to cash market
 - Tied to events that may affect supply and demand
 - Expands marketing opportunities
- **Seasonal Price Patterns**
 - Outputs
 - Inputs

Definitions

- **Seasonality**
 - Price variation caused by market *uncertainty* associated with normal physiological or fundamental effects such as planting, critical growing stage, harvest, supply and demand conditions, and holidays
 - Provides additional information to compliment traditional fundamental and technical analysis
- **Syndrome or Anomaly**
 - Price variation caused by market uncertainty associated with an unusual event such as a drought, trade disruption, BSE, etc.

Monthly Seasonal Index Average Percentage Method

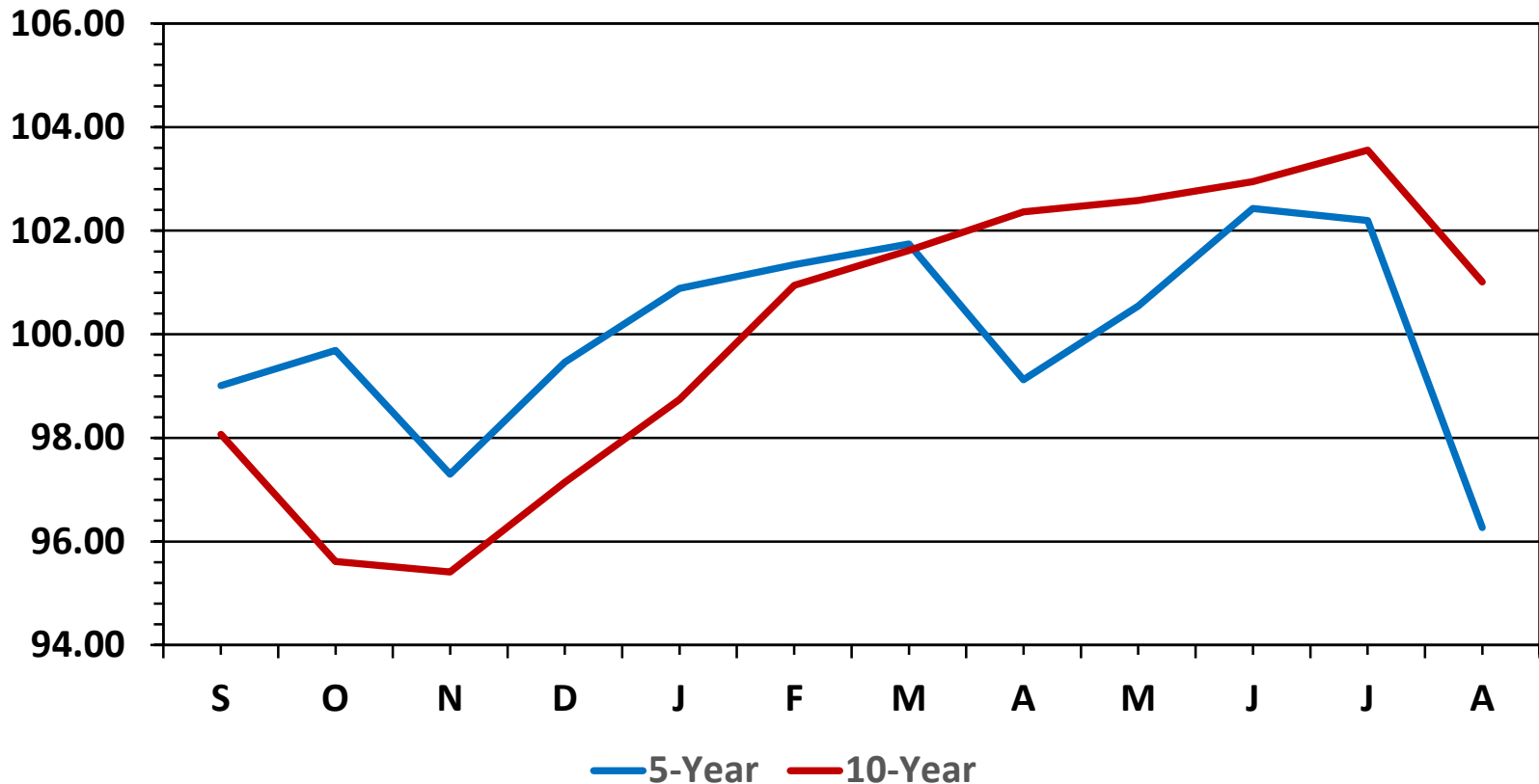
- **Calculate the annual average price for each year or season**
- **Divide the monthly price by that season's average to get the monthly index value**
- **Average all the monthly price indices for the time period of interest**
- **The resulting figure is the seasonal index**

Seasonal Price Index for U.S. Corn

September 2010/2011 – August 2019/2020

Marketing Year

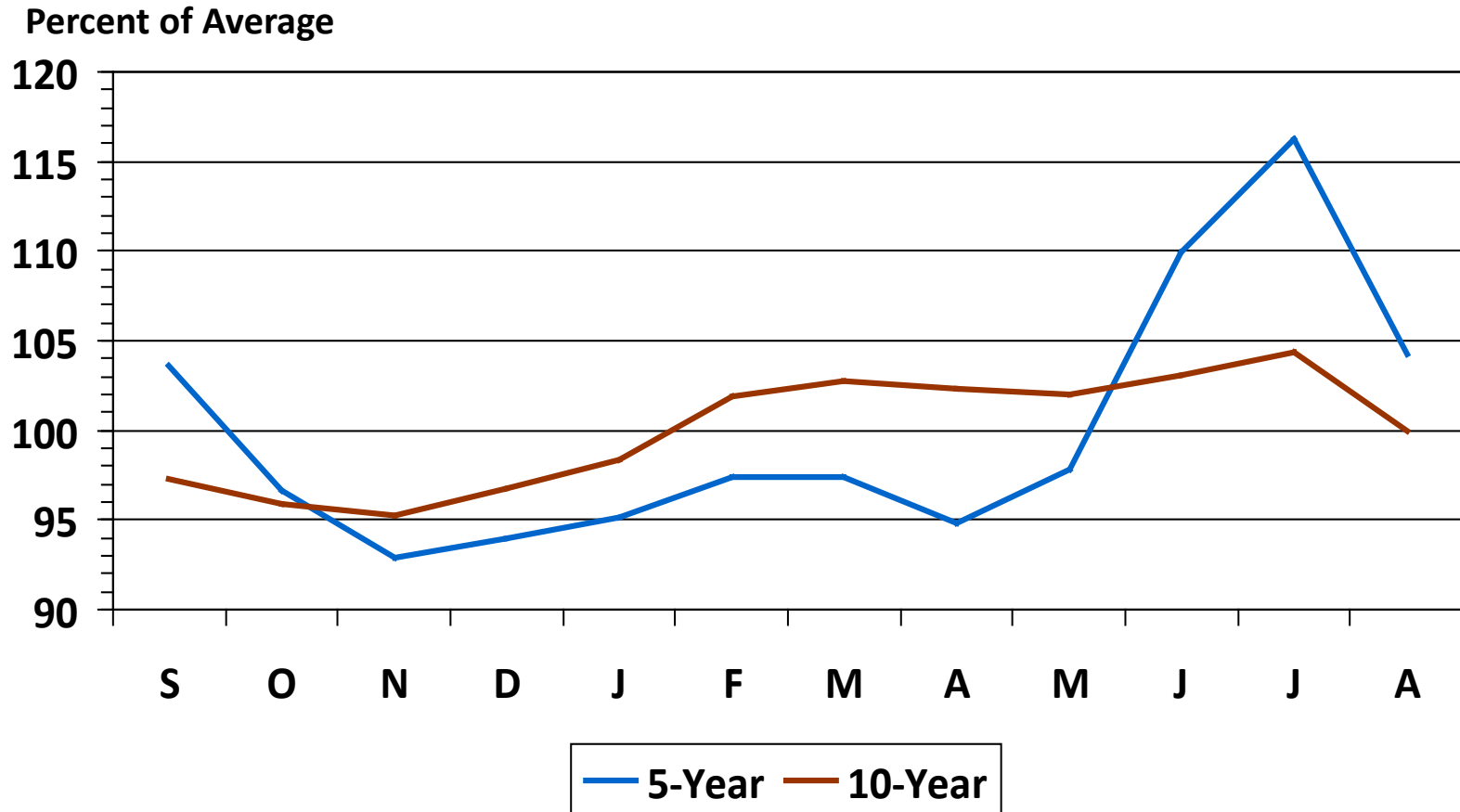
Percent of Average



Seasonal Price Index for U.S. Sorghum

September 2010/2011 – August 2019/2020

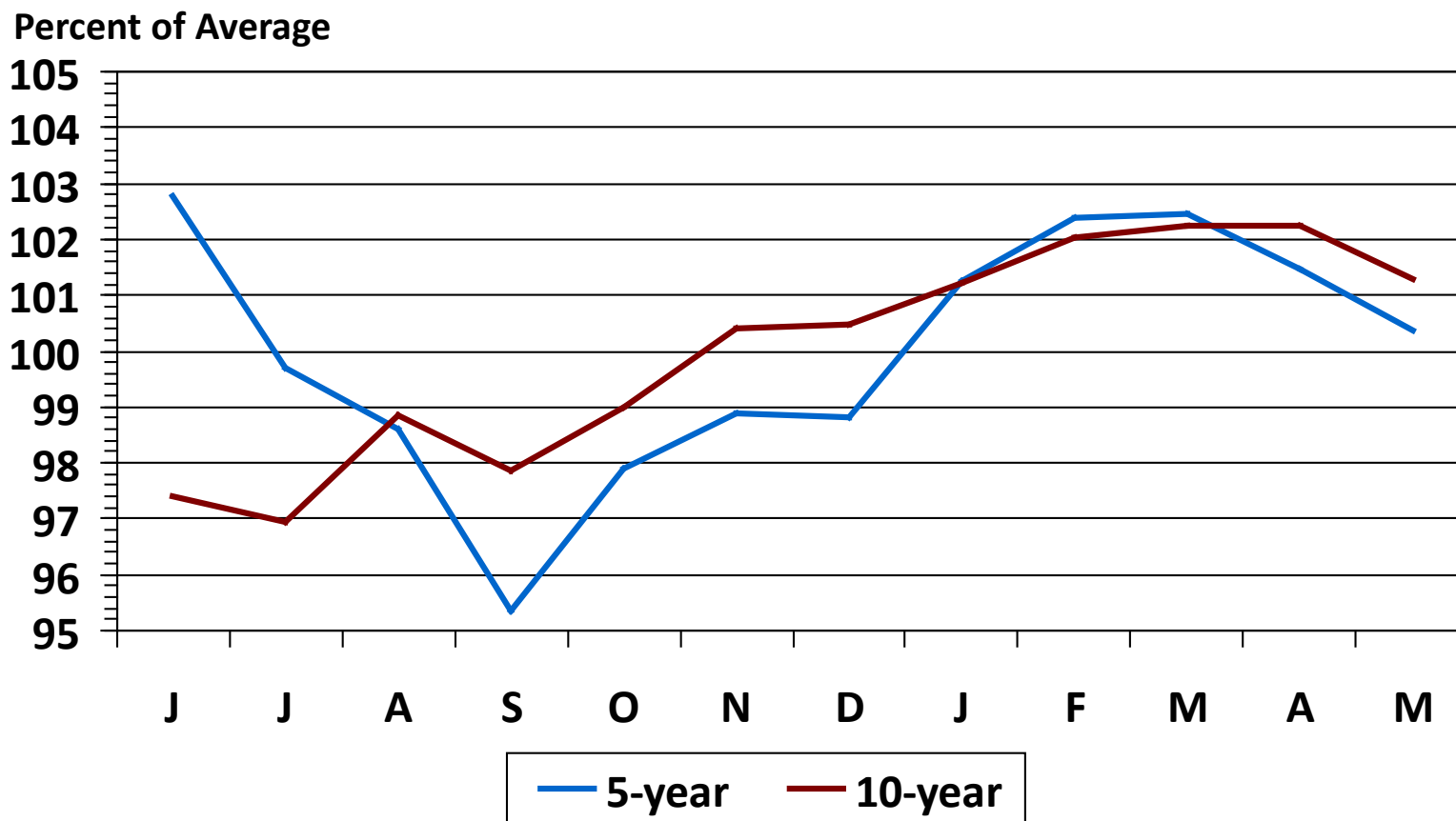
Marketing Year



Seasonal Price Index for U.S. Wheat

June 2010/2011 – May 2019/2020

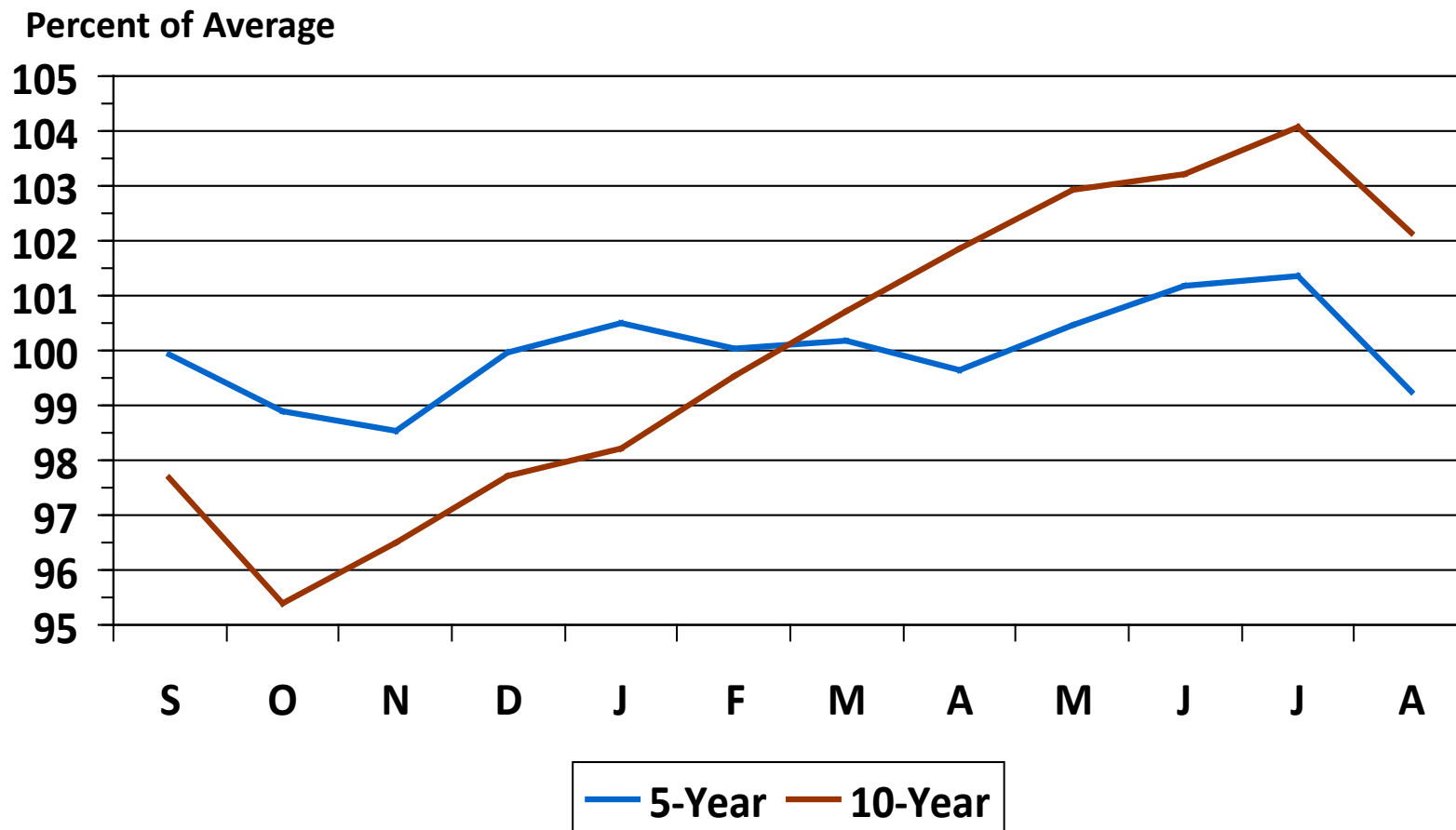
Marketing Year



Seasonal Price Index for U.S. Soybeans

September 2010/2011 – August 2019/2020

Marketing Year



Moore Research Center - Seasonal Price Index

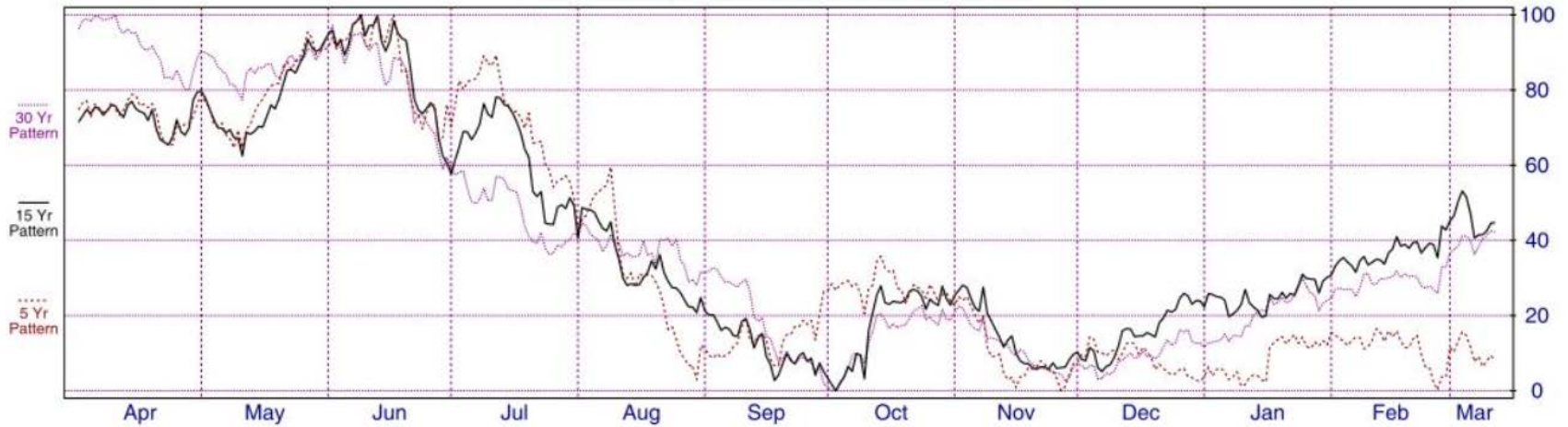
- Calculate contract high/low/range for time period of interest
 - 2018 Dec Corn, January 1 through December 14 (exp.)
 - High: 426.50
 - Low: 343.25
 - Range: 83.25
- Determine daily index (0 to 1.00)
 - Price on June 1 was 411.25. The index for 6/1/18 is $(\text{price minus low})/\text{range}$
 $(411.25-343.25)/83.25=68/83.25=0.82$
- Average daily indices over years
 - June 1 Index 2014-2018: 0.72, 0.11, 0.76, 0.68, 0.82; 5-yr avg: 0.62
 - Fit the average of daily indices to a 0 to 1.00 range as above
 - The highest average daily index from 2014 to 2018 (5-yr index) was 0.70
 - The lowest average daily index value from 2013-17 was 0.13
 - The range of average daily index values for five years was 0.57
 - On June 1, the 5-year daily index value was 0.62
 - The 5-year Index value is $0.62-0.13/0.57=0.86$
 - *NOTE: Most longer term indices will range from .35 to .65*

Moore Research Center – Bull/Bear Charts

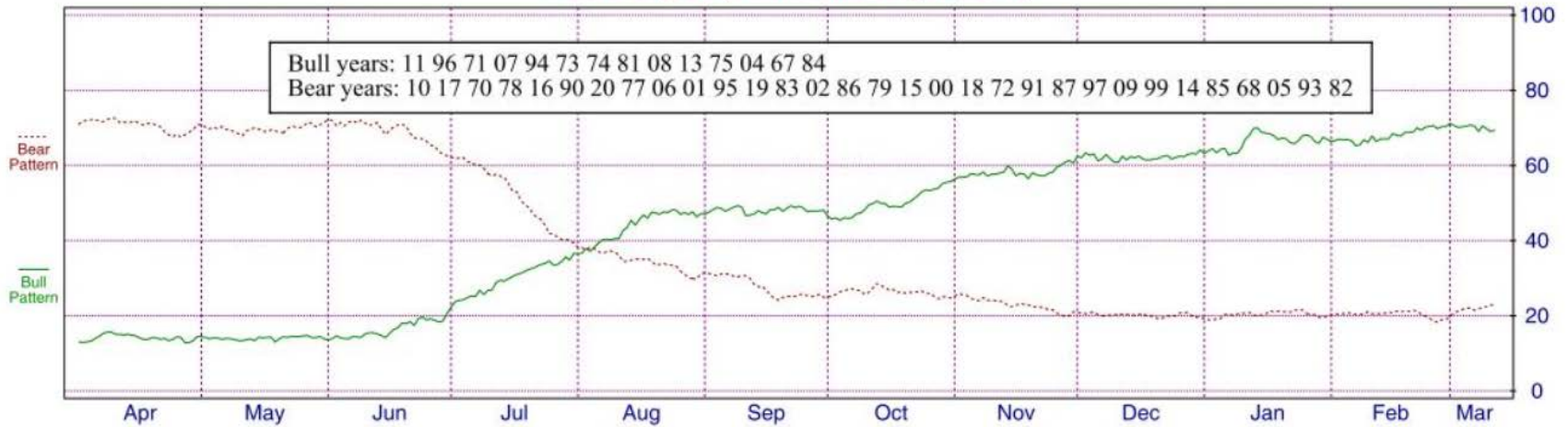
- Each bull/bear chart consists of one composite pattern for bull years and one for bear years, years indicated in the box ('72' = 1972).
- Contract years are listed in order of the degree of inclination/declination of the line; most bullish of bull years listed first, most bearish of bear years listed last.
- To be included in the chart, the contract that year must meet a strict mathematical definition.
- Years with a neutral bias are not considered.
- Scale is not fitted to 100 to better represent the extent of typical bull or bear move.
 - *NOTE: Most longer term indices will range from .35 to .65*

CORN

March Corn(CBOT) Seasonal Patterns(1991-2020)

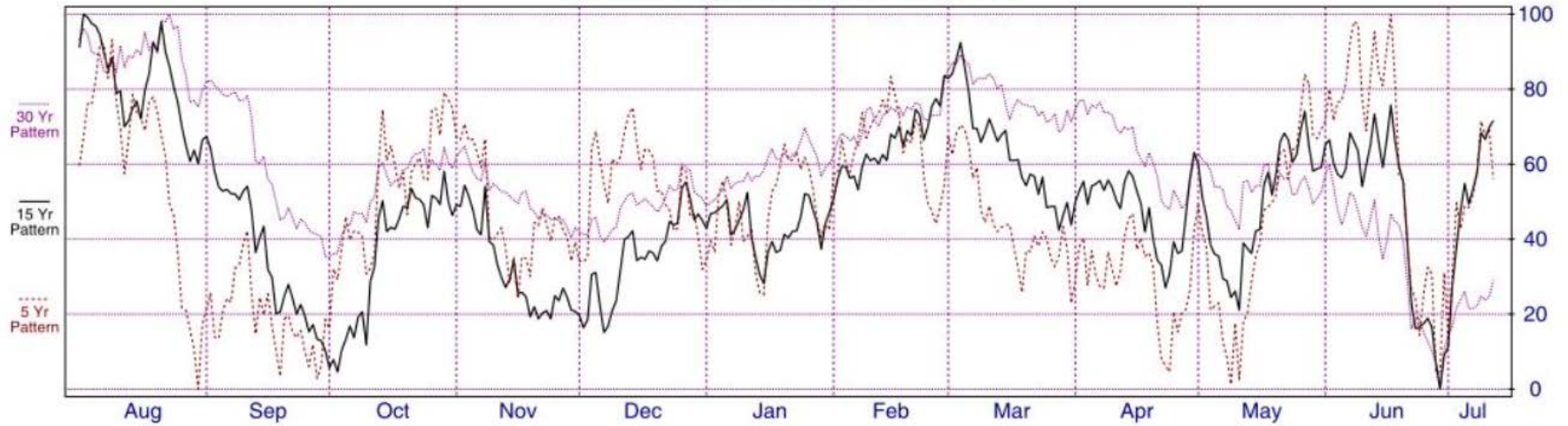


March Corn(CBOT) Bull/Bear Patterns(1966-2020)

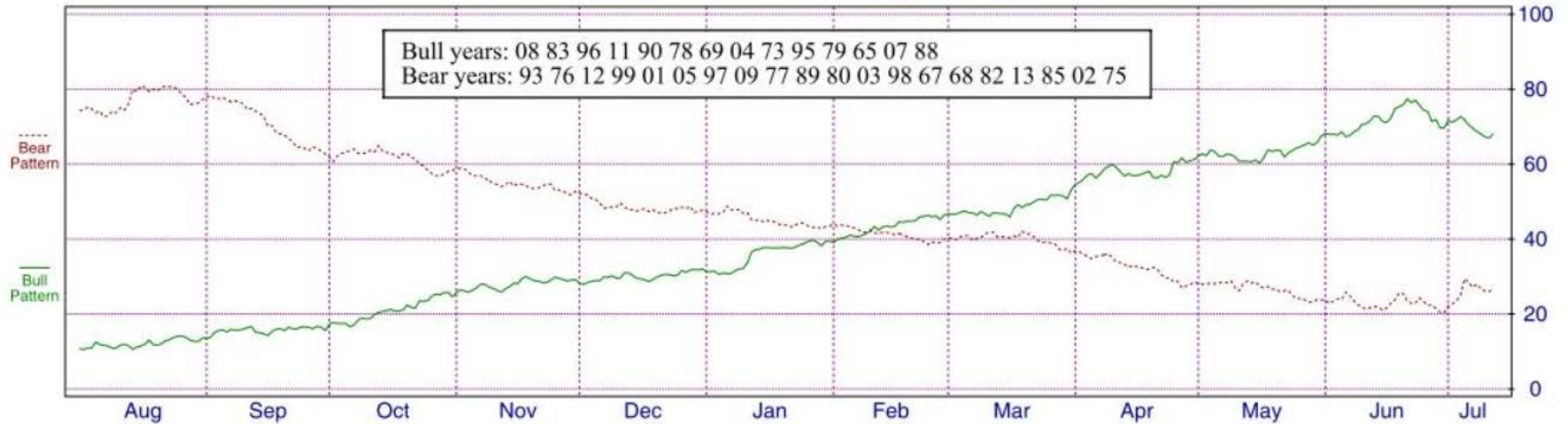


CORN

July Corn(CBOT) Seasonal Patterns(1990-2019)

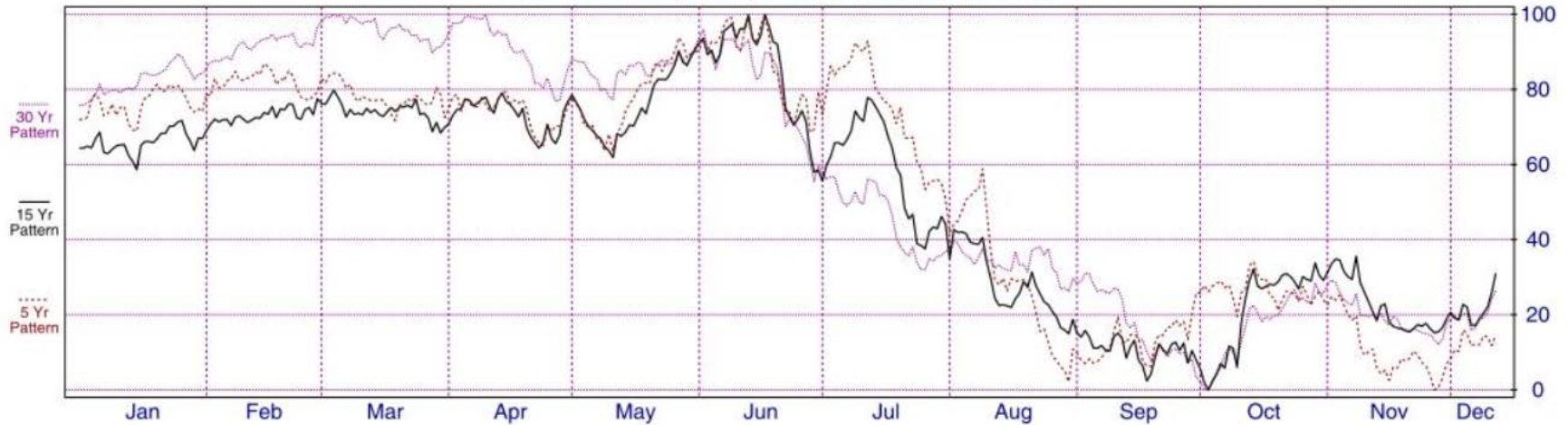


July Corn(CBOT) Bull/Bear Patterns(1965-2019)

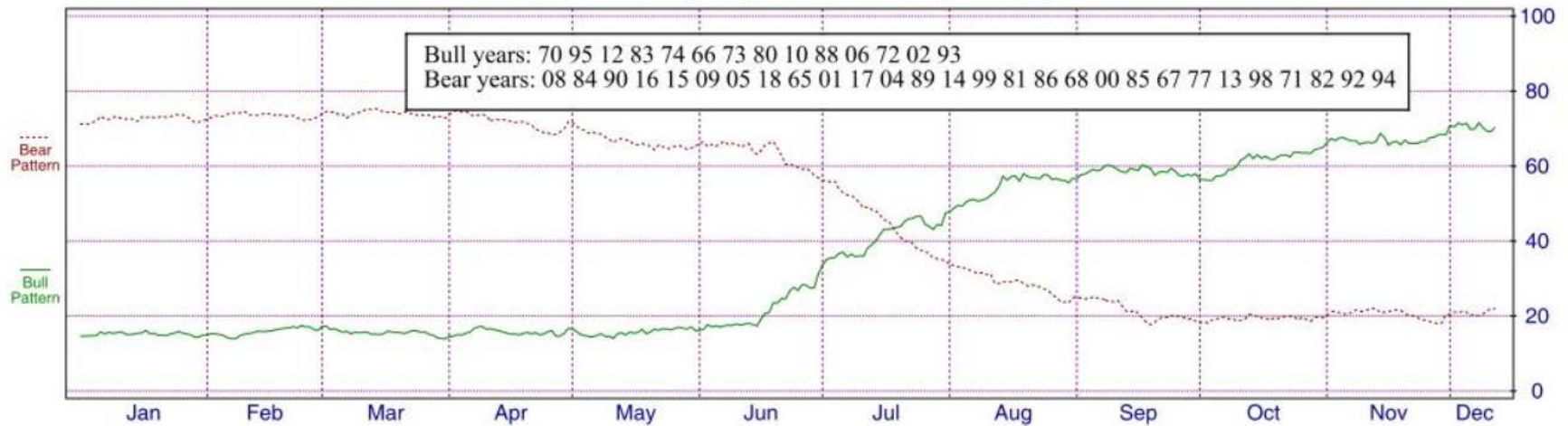


CORN

December Corn(CBOT) Seasonal Patterns(1990-2019)



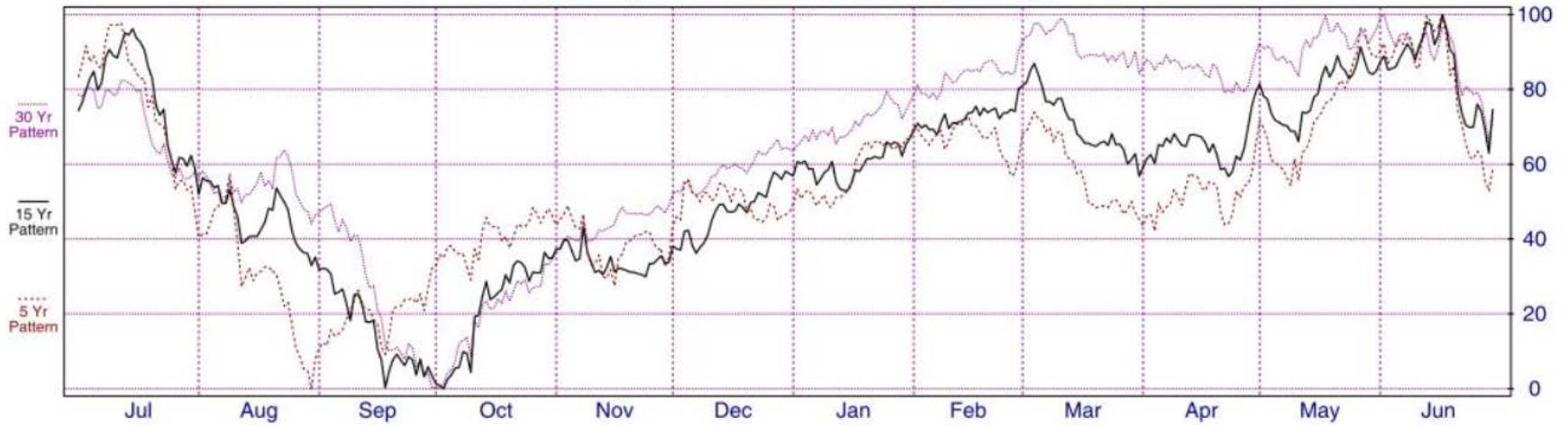
December Corn(CBOT) Bull/Bear Patterns(1965-2019)



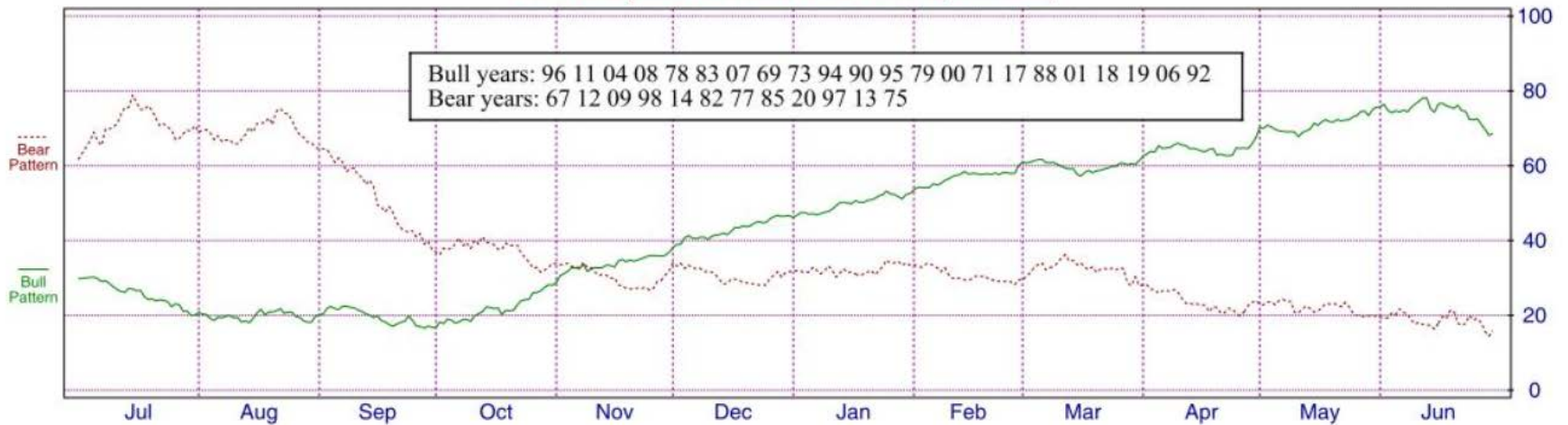
14 out of 55 were bull years: 25%
28 out of 55 were bear years: 51%

CORN

Corn: No 2 yellow Cent-III Seasonal Patterns(1991-2020)

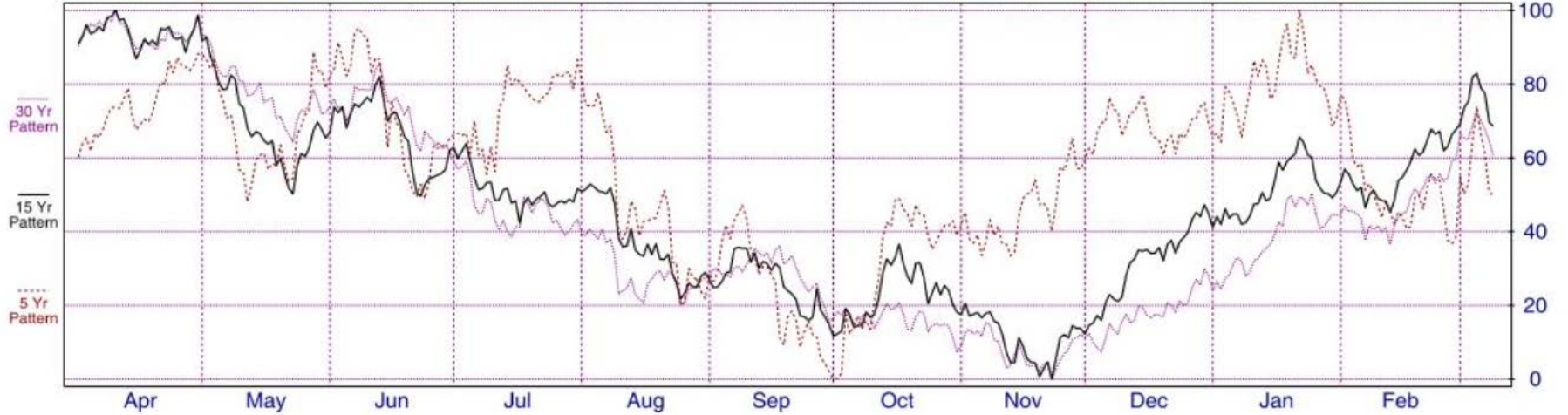


Corn: No 2 yellow Cent-III Bull/Bear Patterns(1966-2020)

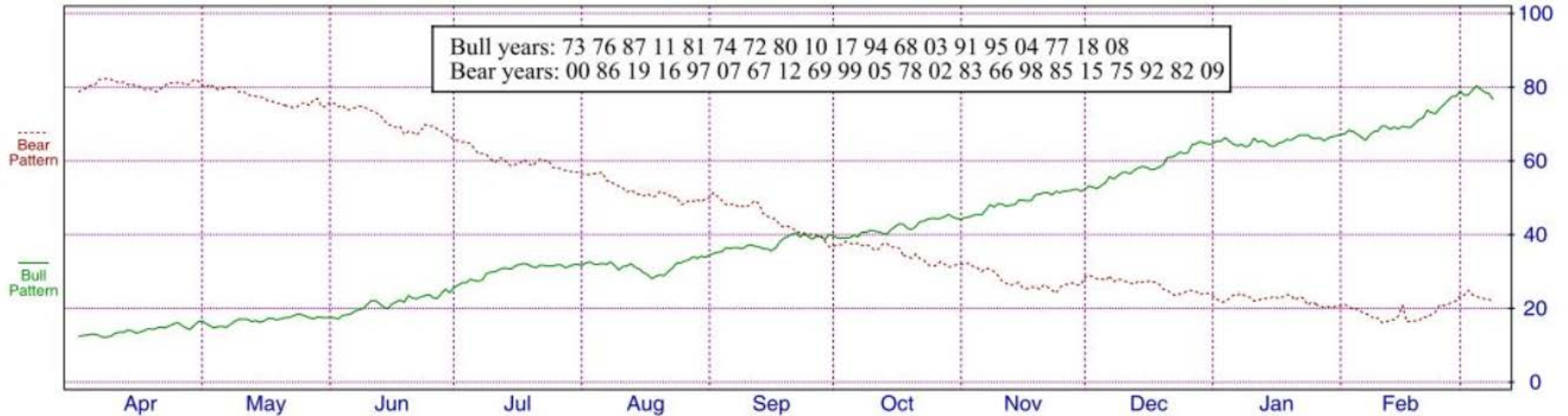


COTTON

March Cotton(ICE) Seasonal Patterns(1991-2020)

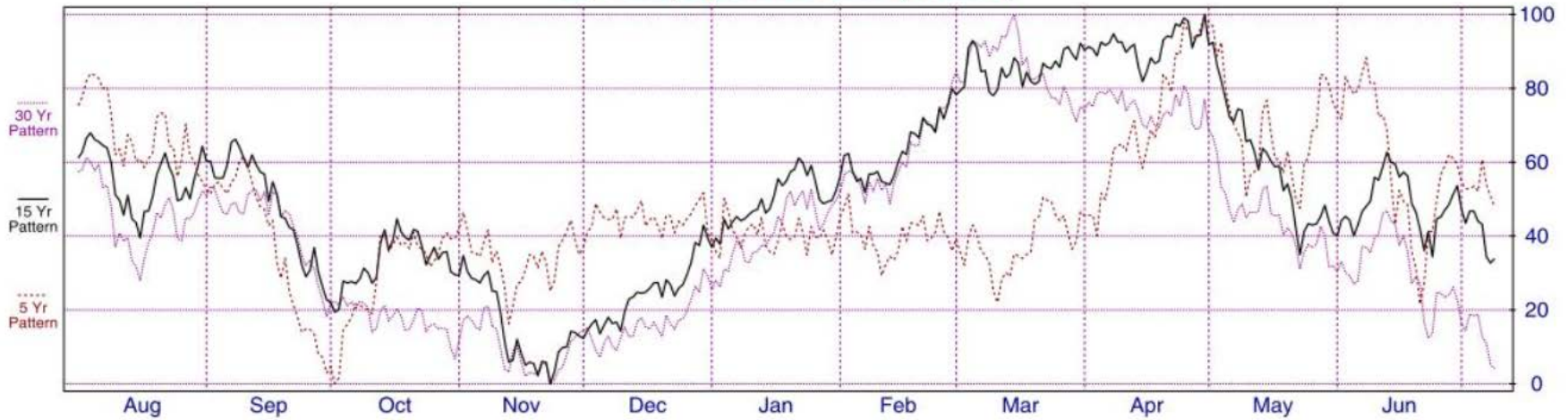


March Cotton(ICE) Bull/Bear Patterns(1966-2020)

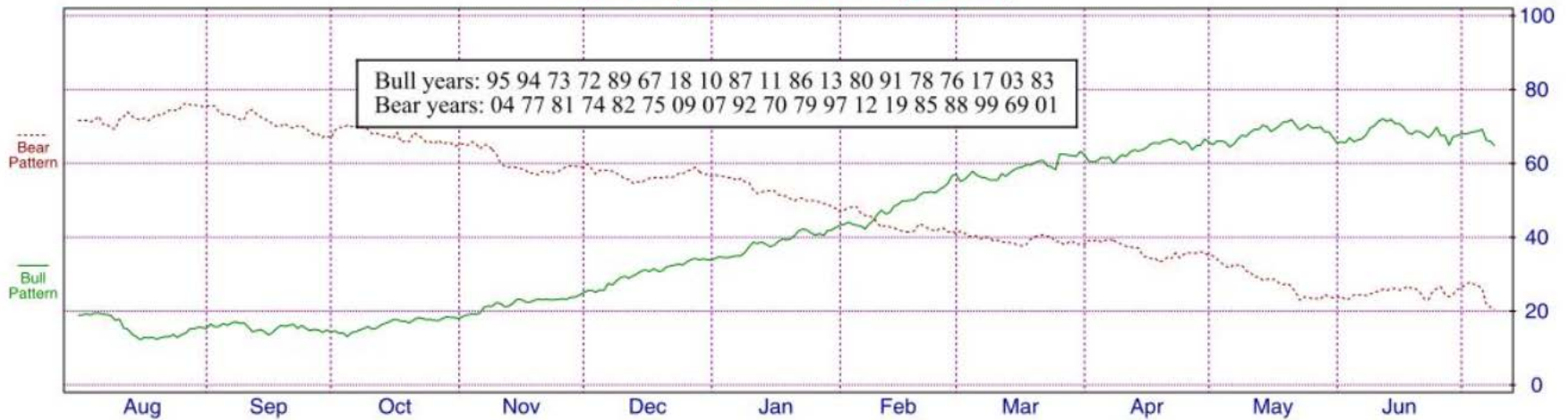


COTTON

July Cotton(ICE) Seasonal Patterns(1990-2019)

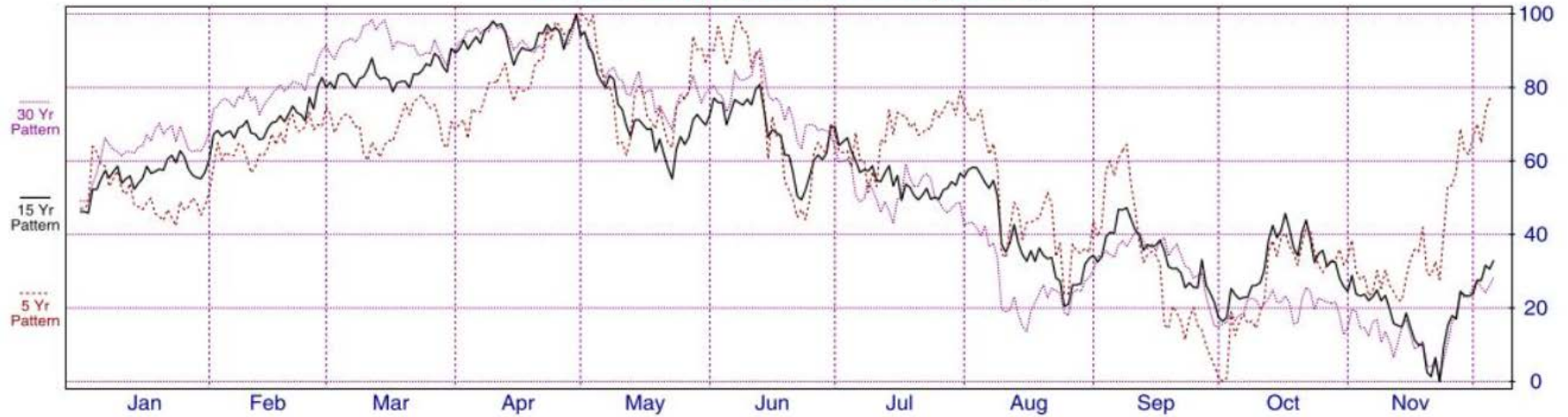


July Cotton(ICE) Bull/Bear Patterns(1965-2019)

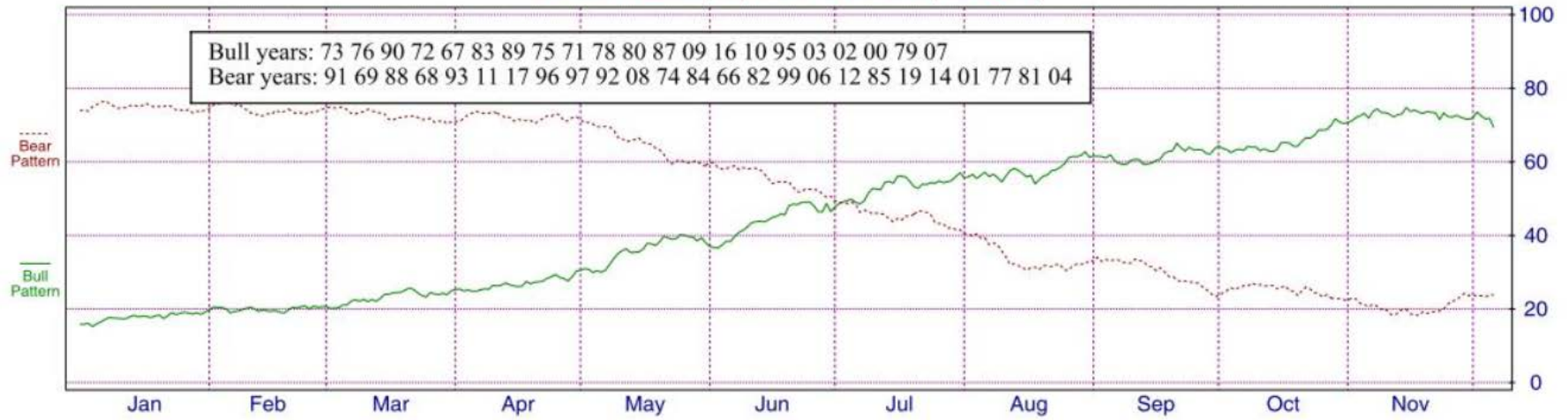


COTTON

December Cotton(ICE) Seasonal Patterns(1990-2019)

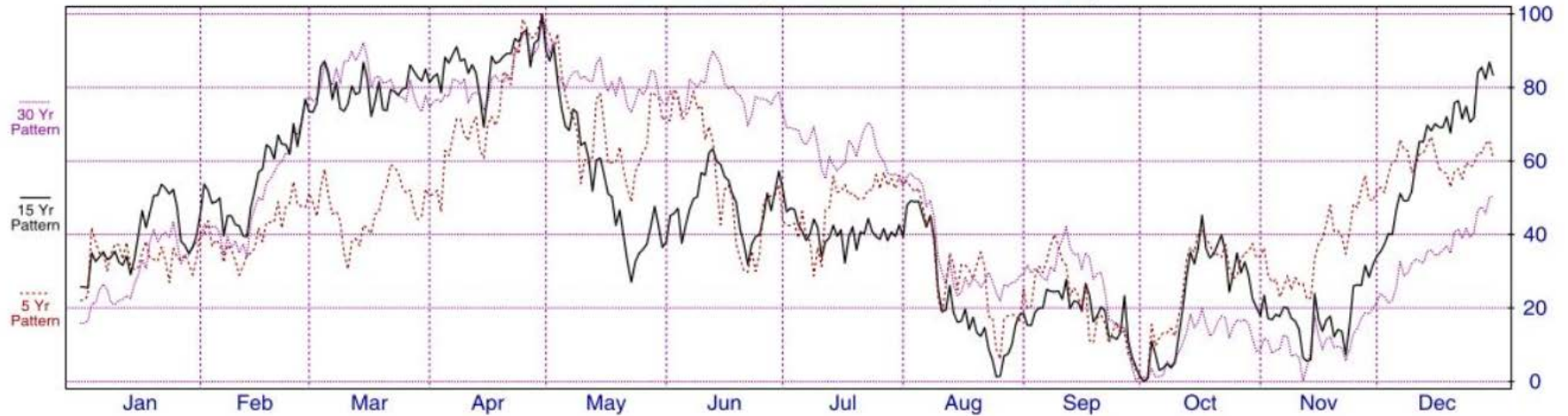


December Cotton(ICE) Bull/Bear Patterns(1965-2019)

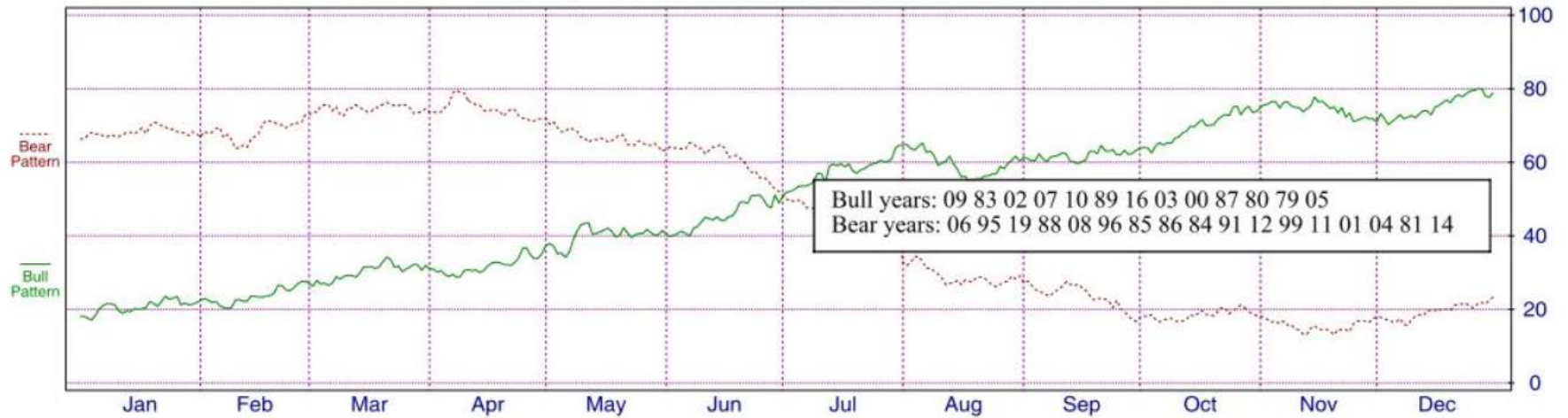


COTTON

Cotton: 1 1/16" str lw-md Memphis Seasonal Patterns(1990-2019)



Cotton: 1 1/16" str lw-md Memphis Bull/Bear Patterns(1979-2019)



Cotton #2 Mar '21 (CTH21)

67.15 +0.23 (+0.34%) 09:19 CT [ICE/US]

67.15 x 1 67.16 x 4

INTERACTIVE CHART for Tue, Oct 6th, 2020

Open an account. E*TRADE NOW Sign up now. E*TRADE

My Charts Alerts Watch Help

CTH21 GO +Study Tools Settings Compare f(x) Grid View

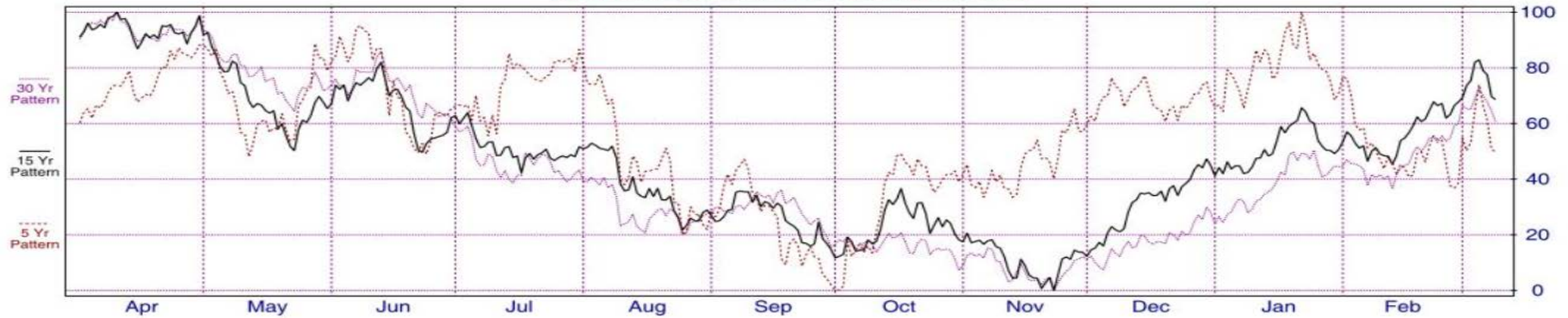
Templates Print Clear

Range: 1D 5D 1M 3M 6M 9M 1Y 2Y 3Y 5Y 10Y 20Y MAX Frequency: Daily Date Date

tutorial

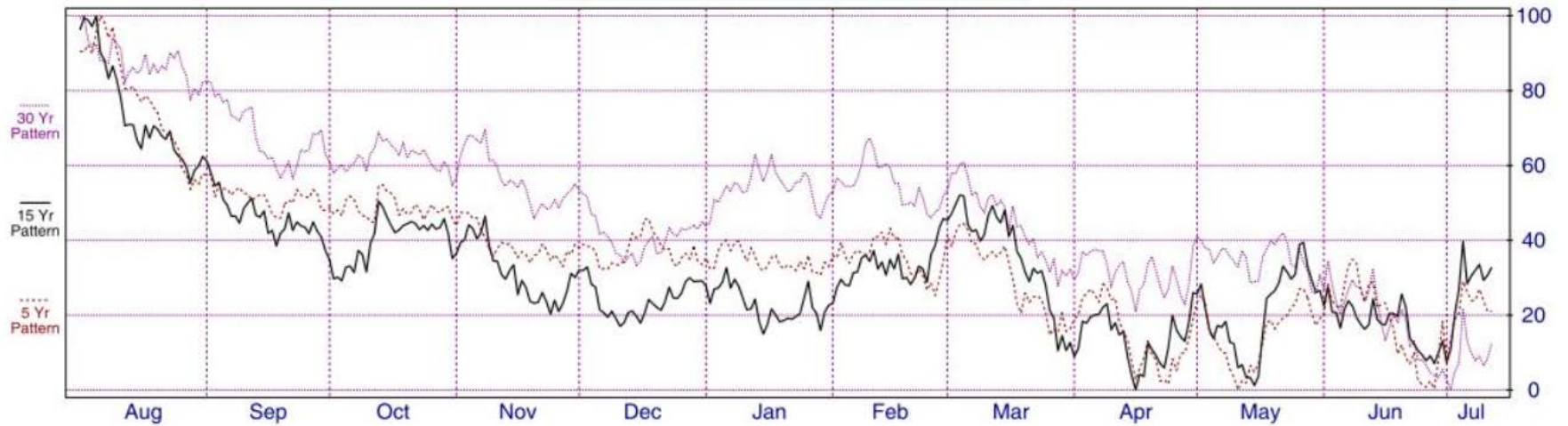


March Cotton(ICE) Seasonal Patterns(1991-2020)

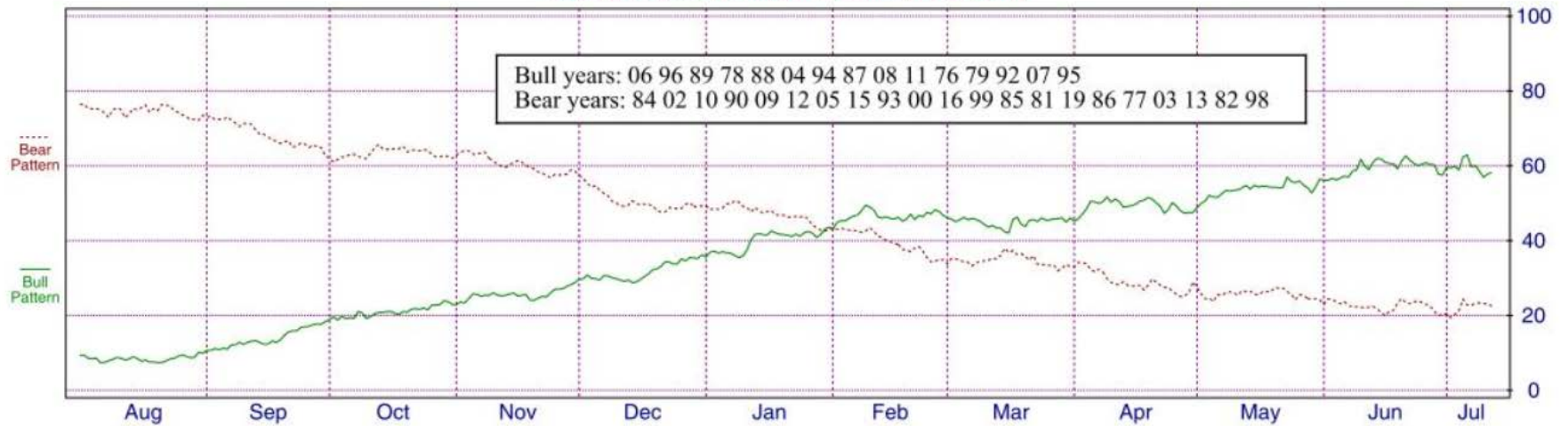


KC WHEAT

July Wheat(KCBT) Seasonal Patterns(1990-2019)

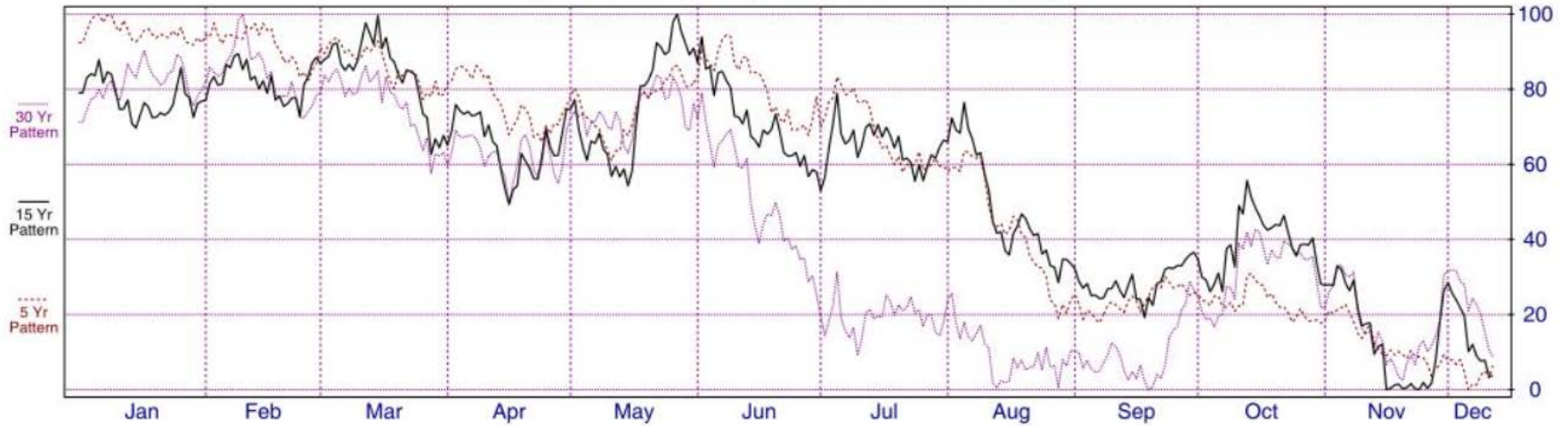


July Wheat(KCBT) Bull/Bear Patterns(1976-2019)

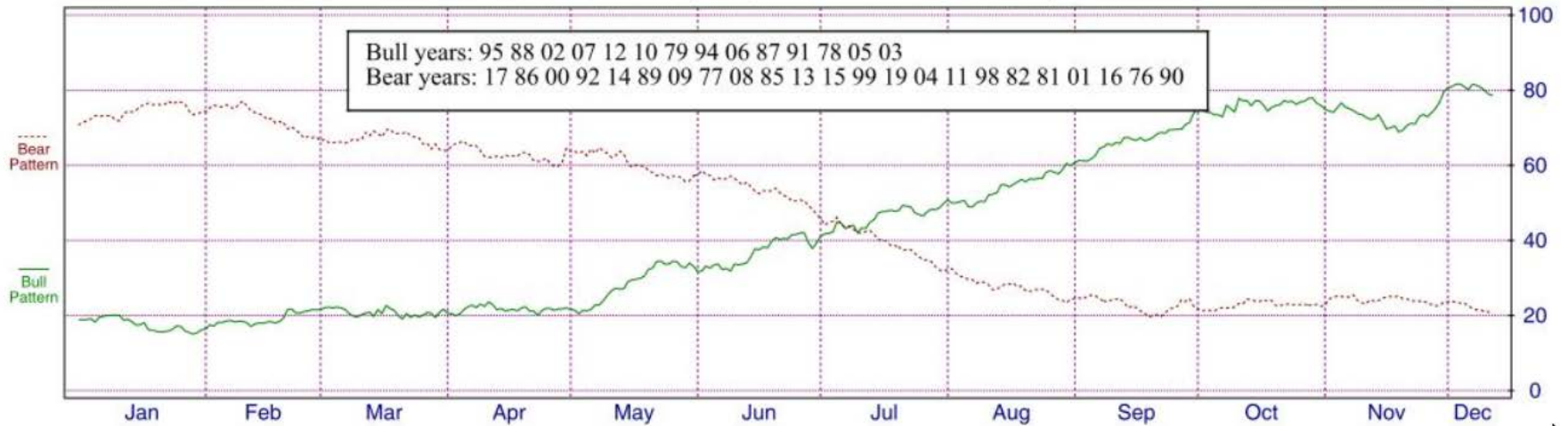


KC WHEAT

December Wheat(KCBT) Seasonal Patterns(1990-2019)

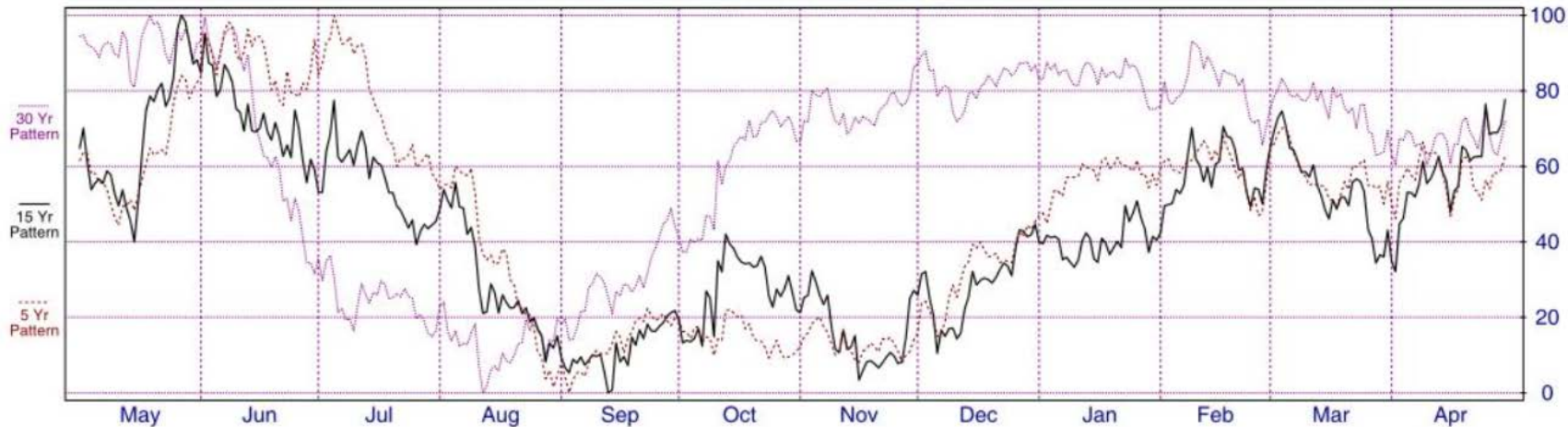


December Wheat(KCBT) Bull/Bear Patterns(1976-2019)

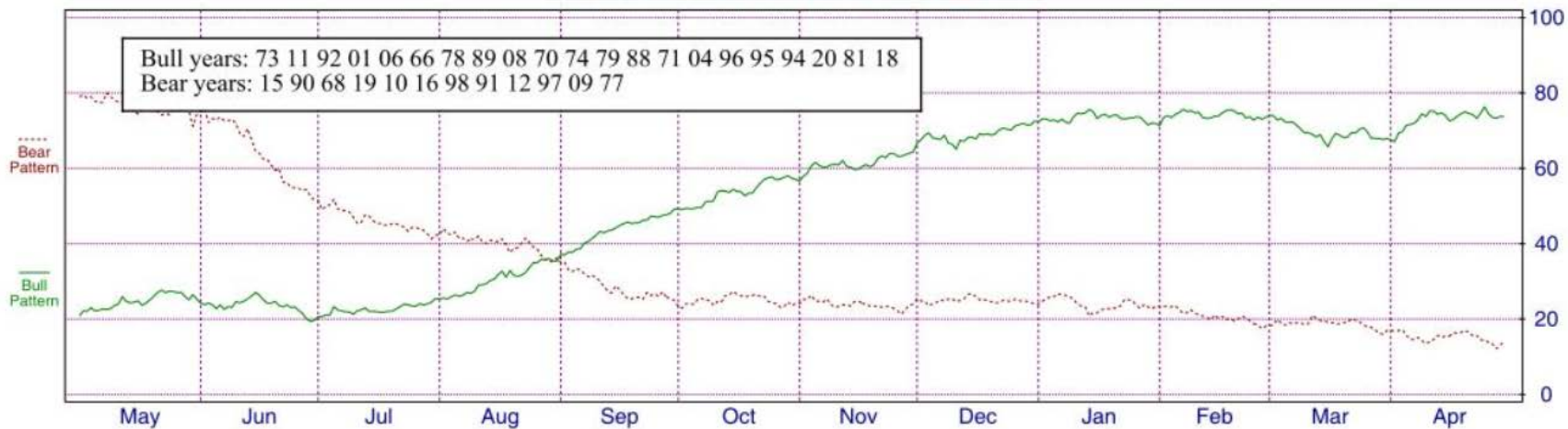


KC WHEAT

Wheat: No 2 hard KC Seasonal Patterns(1991-2020)

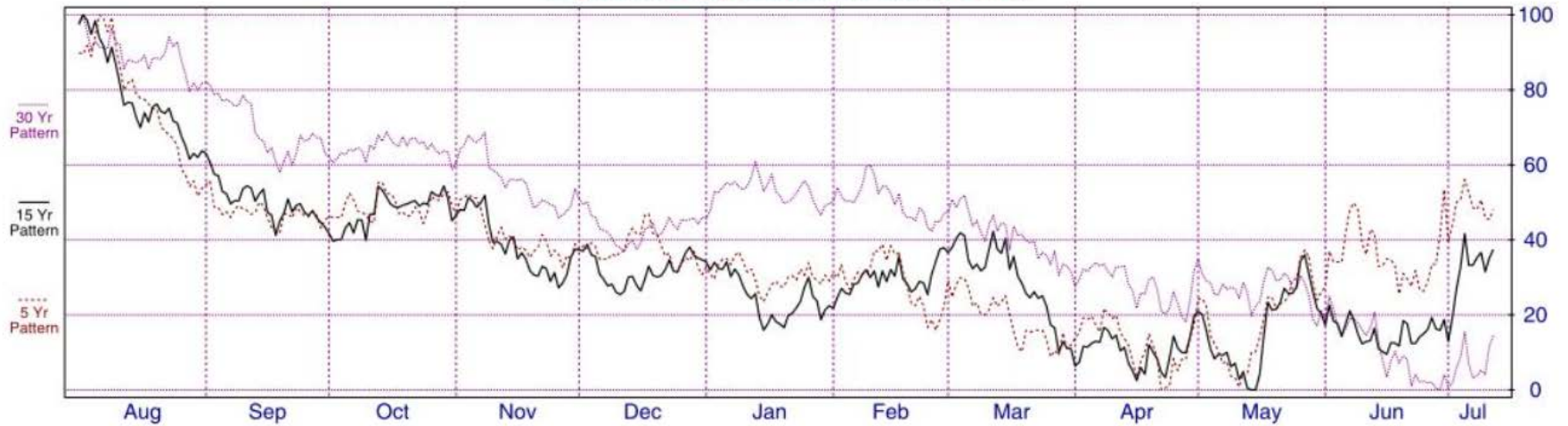


Wheat: No 2 hard KC Bull/Bear Patterns(1966-2020)

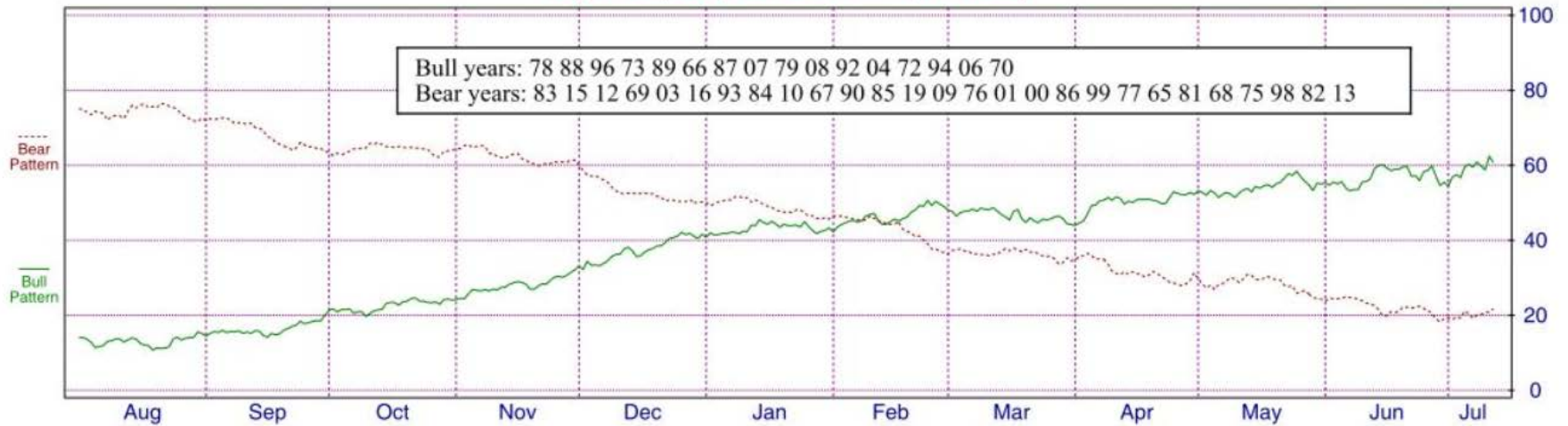


CHICAGO WHEAT

July Wheat(CBOT) Seasonal Patterns(1990-2019)

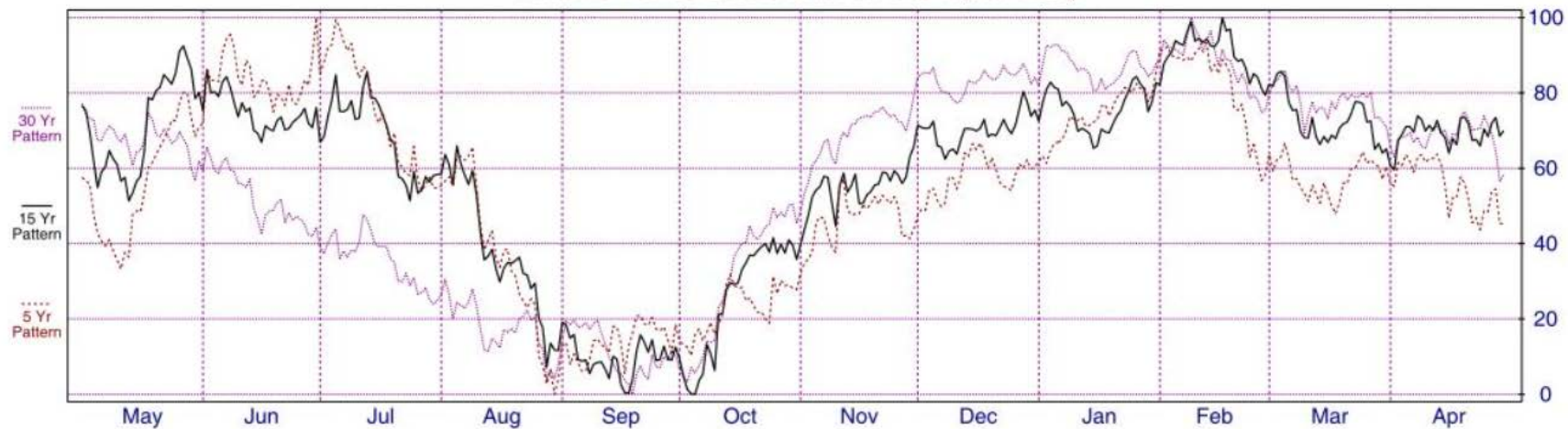


July Wheat(CBOT) Bull/Bear Patterns(1965-2019)

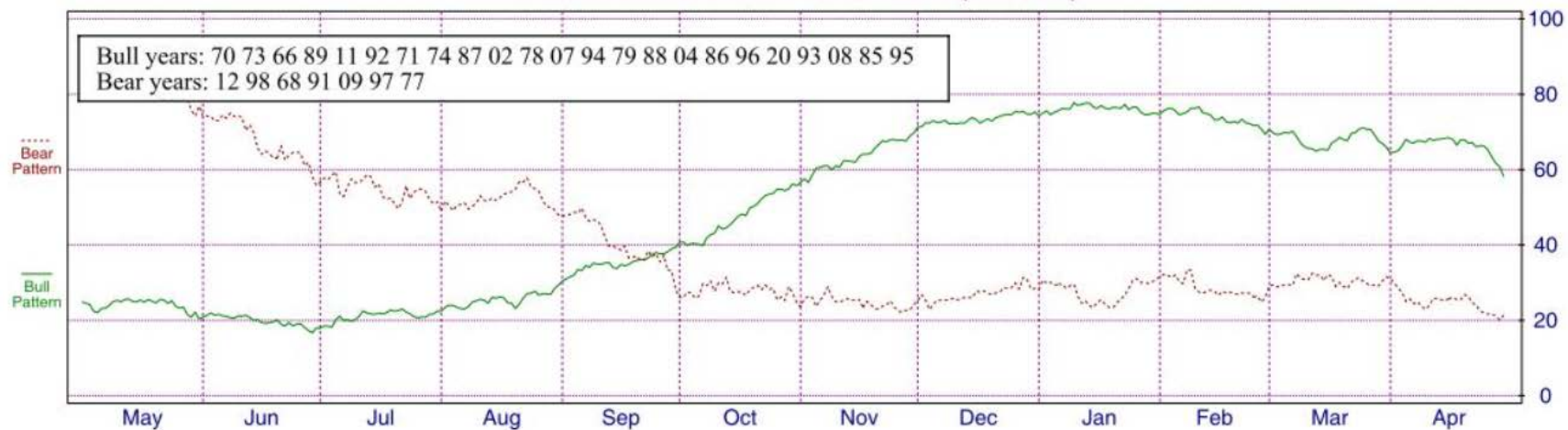


CHICAGO WHEAT

Wheat: No 2 sft red St Louis Seasonal Patterns(1991-2020)

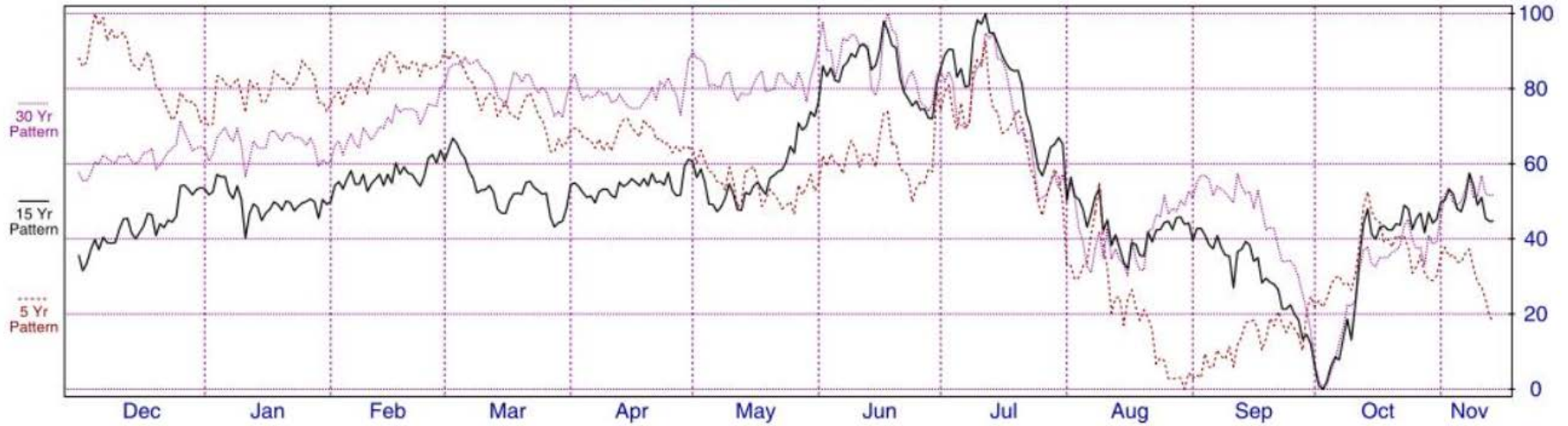


Wheat: No 2 sft red St Louis Bull/Bear Patterns(1966-2020)

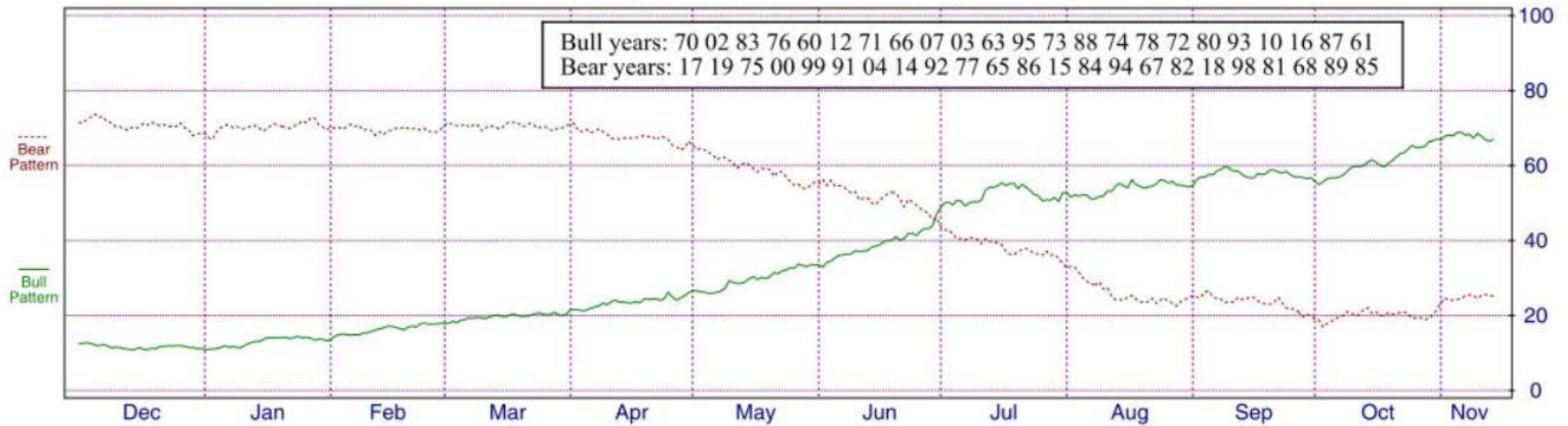


SOYBEANS

November Soybeans(CBOT) Seasonal Patterns(1990-2019)

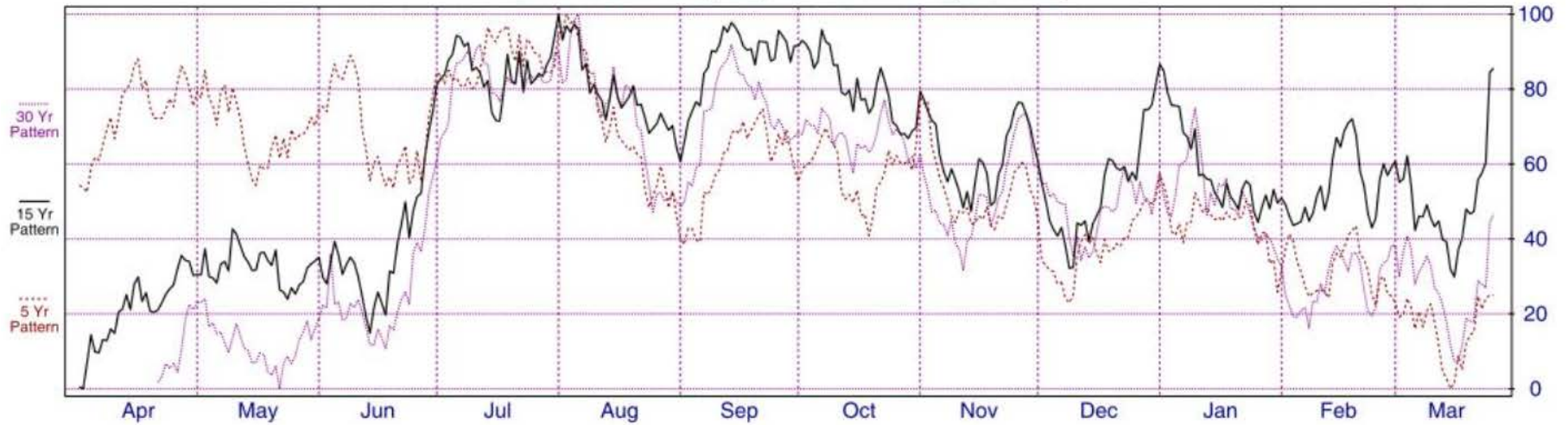


November Soybeans(CBOT) Bull/Bear Patterns(1960-2019)

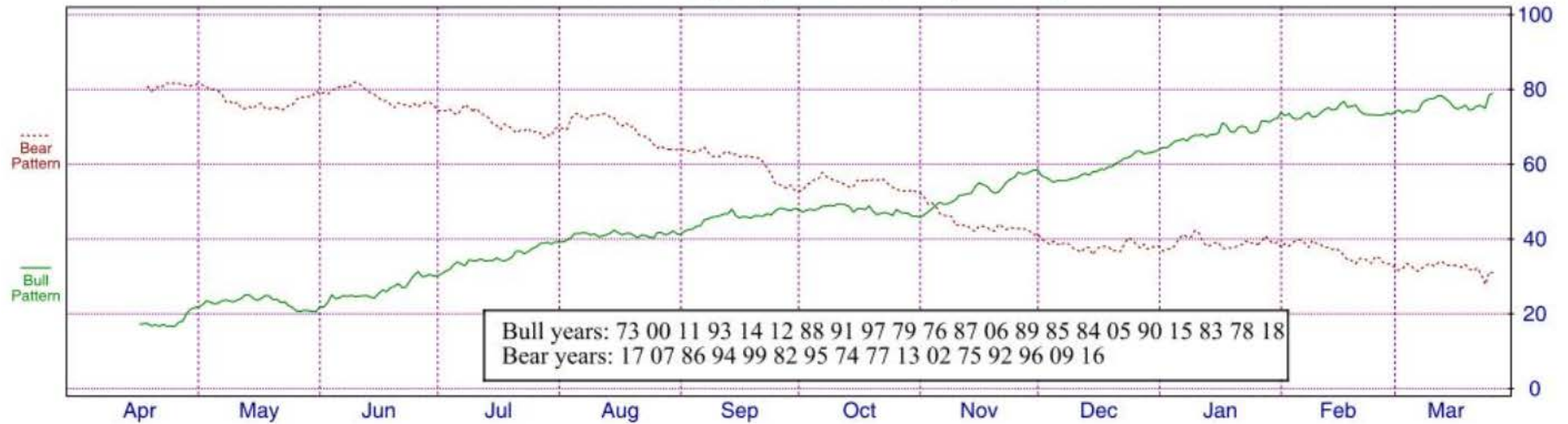


FEEDER CATTLE

March Feeder Cattle(CME) Seasonal Patterns(1991-2020)

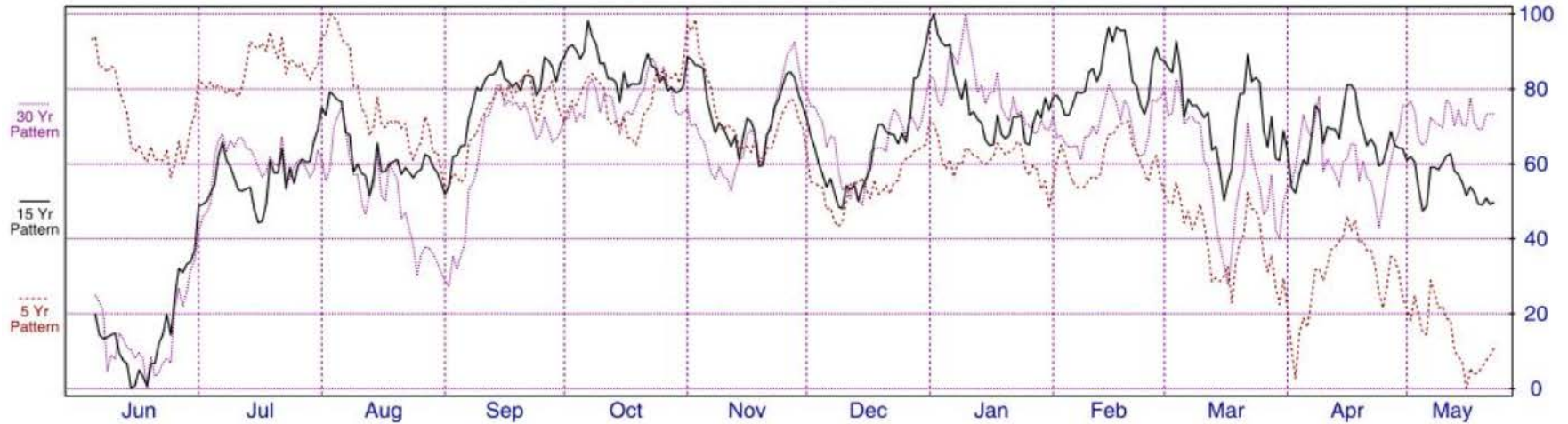


March Feeder Cattle(CME) Bull/Bear Patterns(1973-2020)

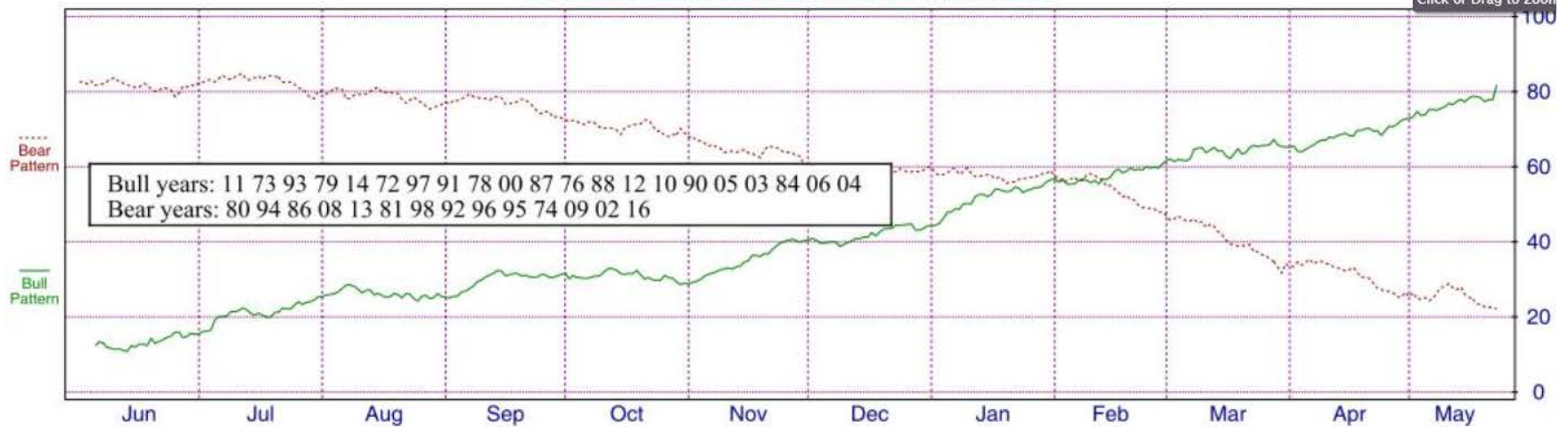


FEEDER CATTLE

May Feeder Cattle(CME) Seasonal Patterns(1991-2020)

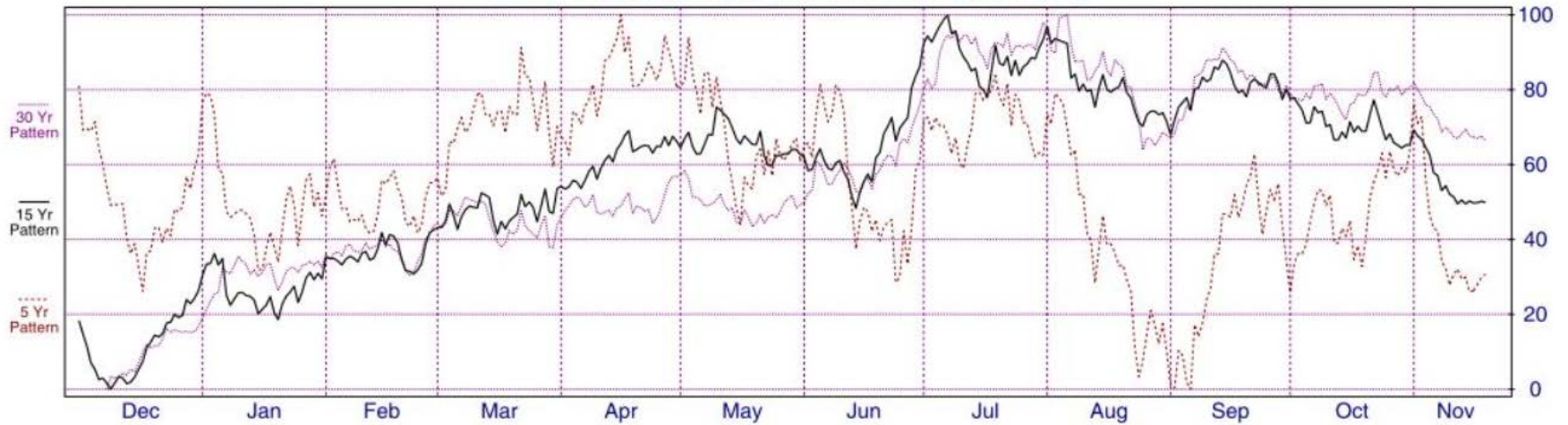


May Feeder Cattle(CME) Bull/Bear Patterns(1972-2020)

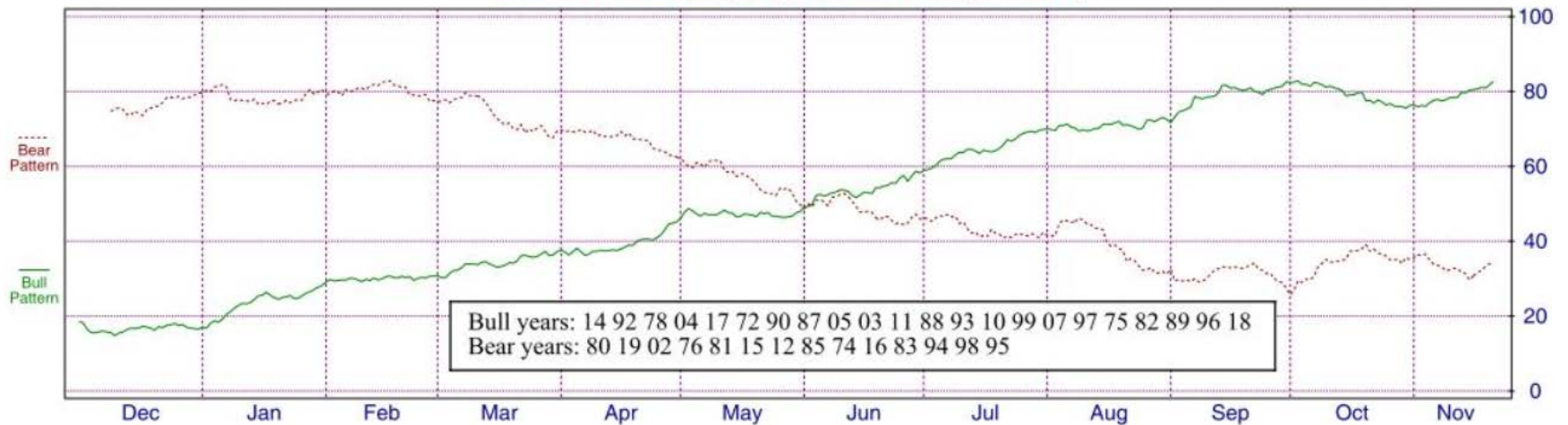


FEEDER CATTLE

November Feeder Cattle(CME) Seasonal Patterns(1990-2019)

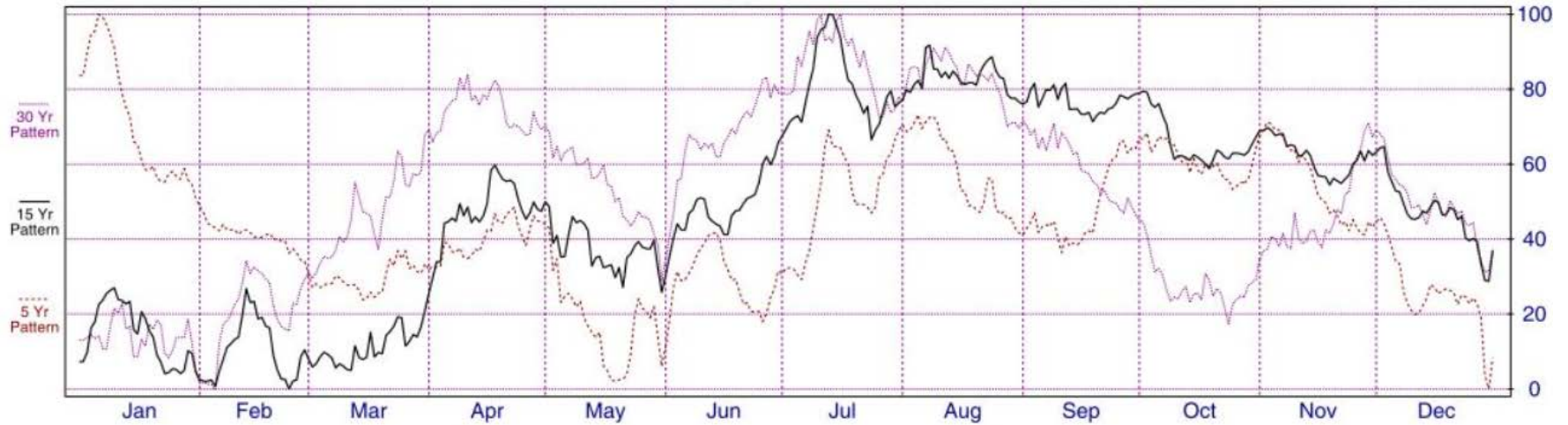


November Feeder Cattle(CME) Bull/Bear Patterns(1972-2019)

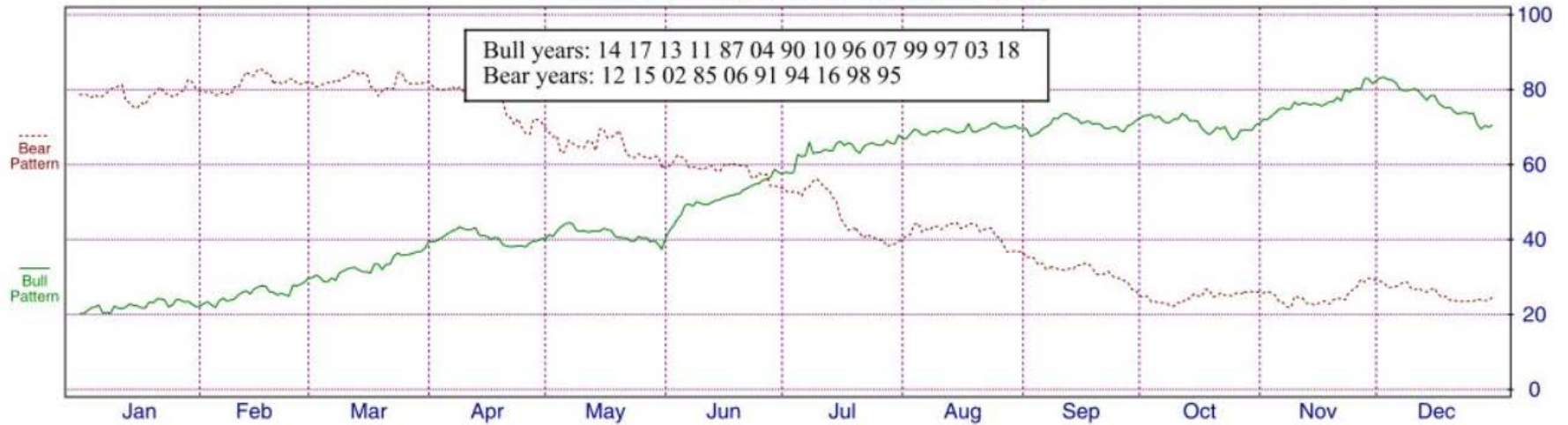


CASH FEEDER CATTLE

Feeder Cattle (Ok. City) Seasonal Patterns(1990-2019)

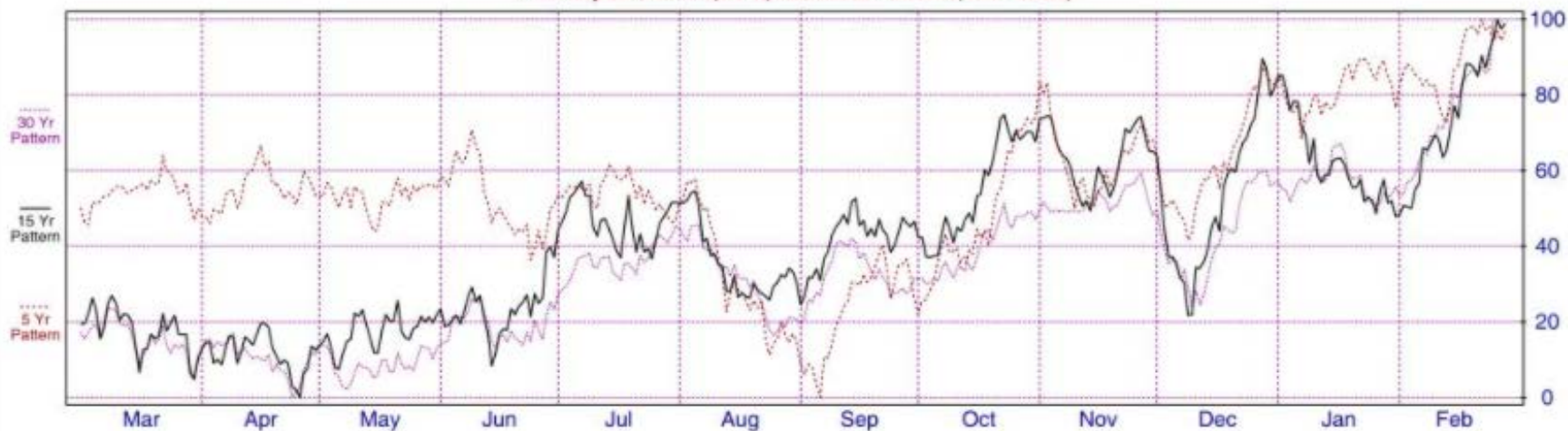


Feeder Cattle (Ok. City) Bull/Bear Patterns(1984-2019)

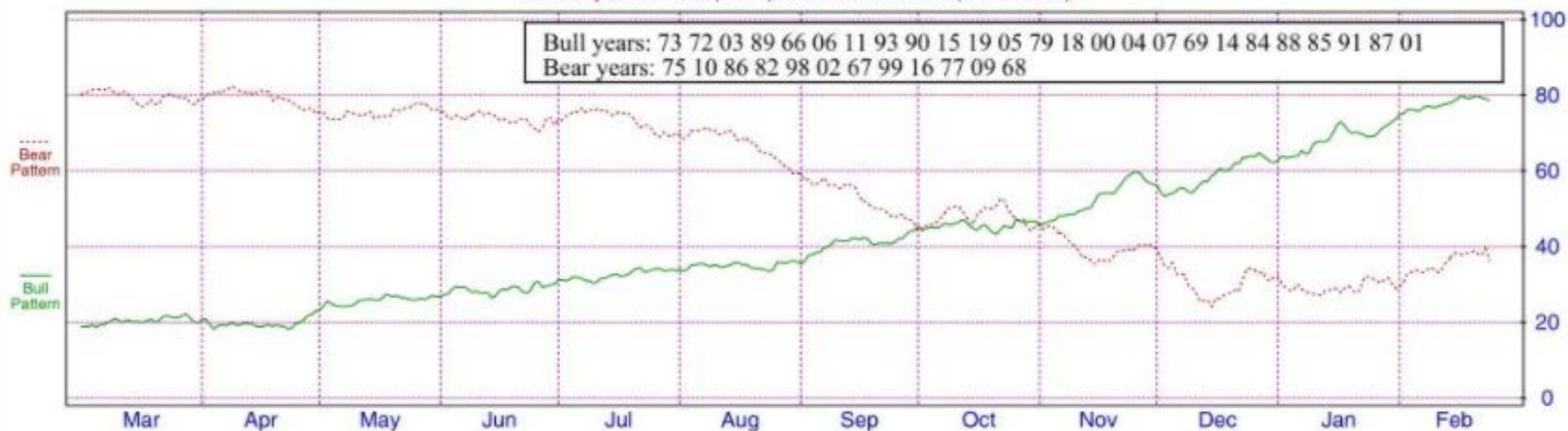


LIVE CATTLE

February Live Cattle(CME) Seasonal Patterns(1991-2020)

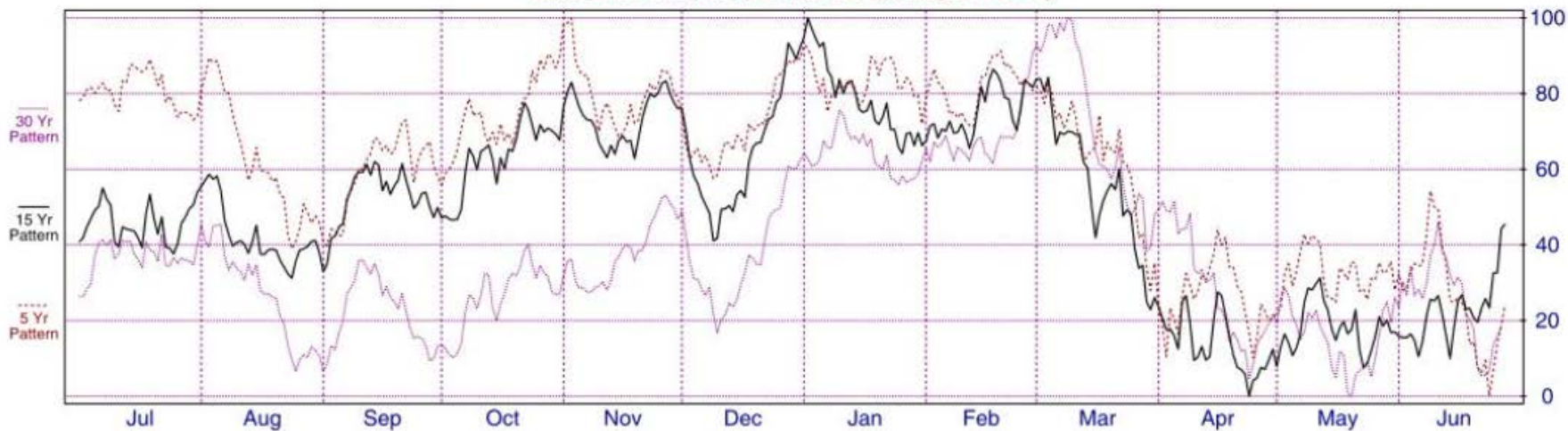


February Live Cattle(CME) Bull/Bear Patterns(1966-2020)

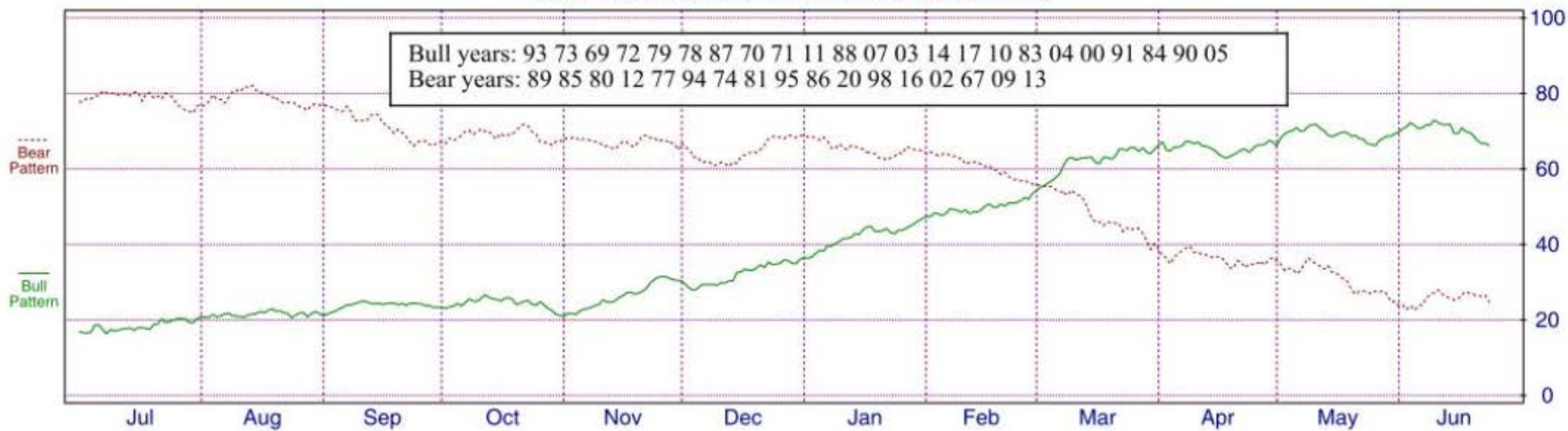


LIVE CATTLE

June Live Cattle(CME) Seasonal Patterns(1991-2020)

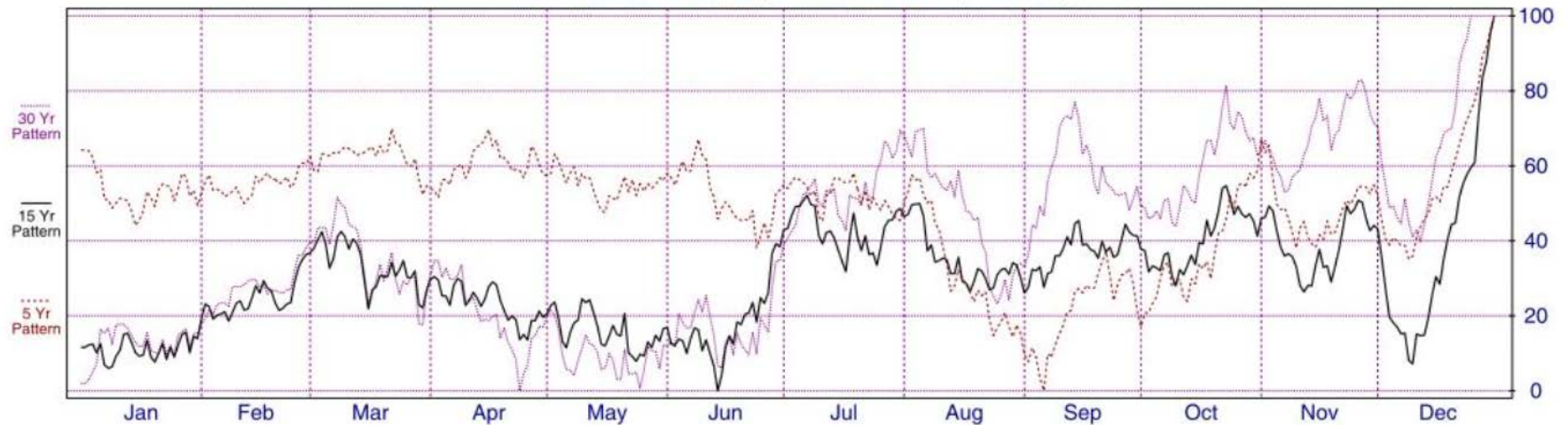


June Live Cattle(CME) Bull/Bear Patterns(1966-2020)

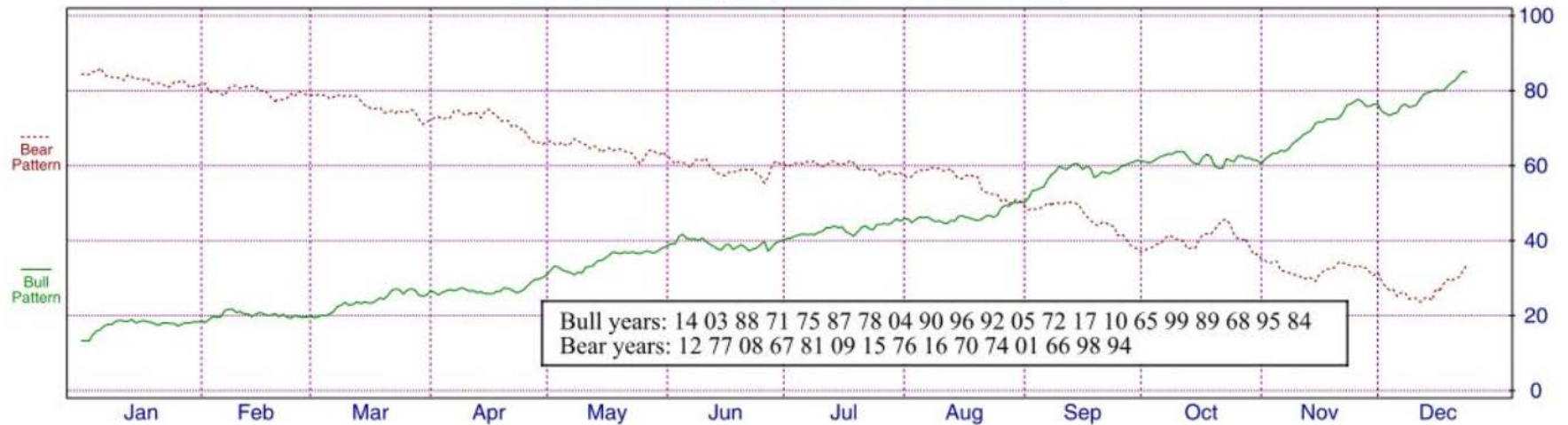


LIVE CATTLE

December Live Cattle(CME) Seasonal Patterns(1990-2019)

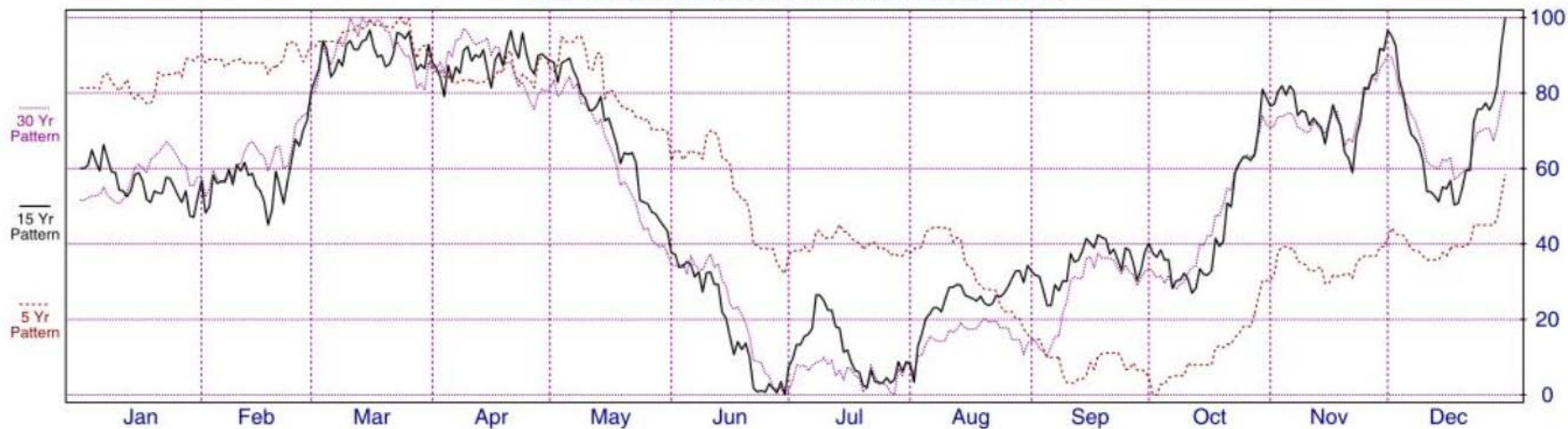


December Live Cattle(CME) Bull/Bear Patterns(1965-2019)

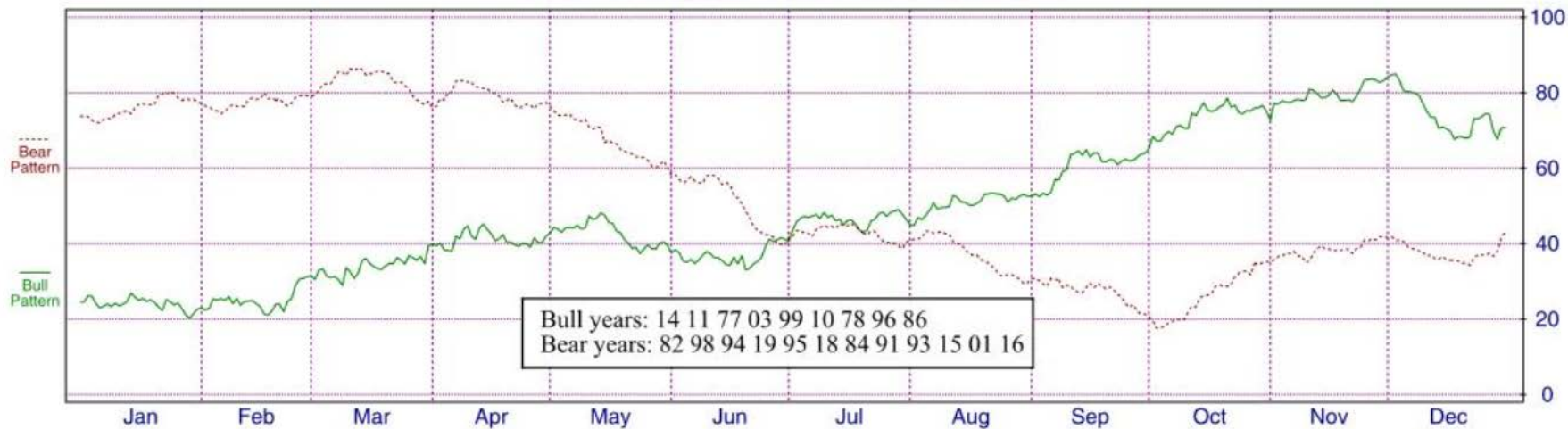


CASH CATTLE

Steers: Texas Panhandle Seasonal Patterns(1990-2019)

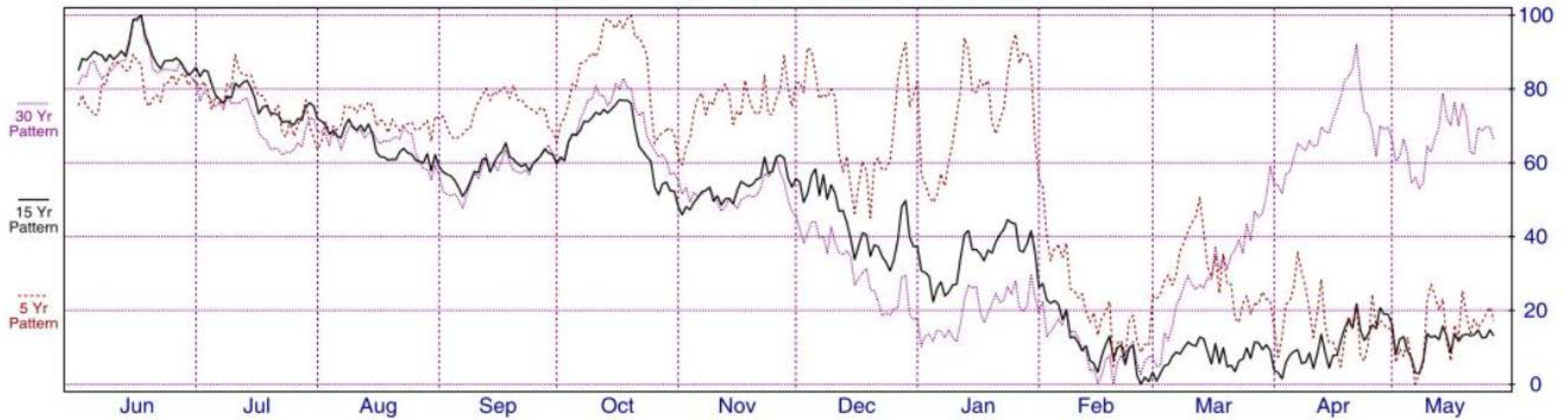


Steers: Texas Panhandle Bull/Bear Patterns(1976-2019)

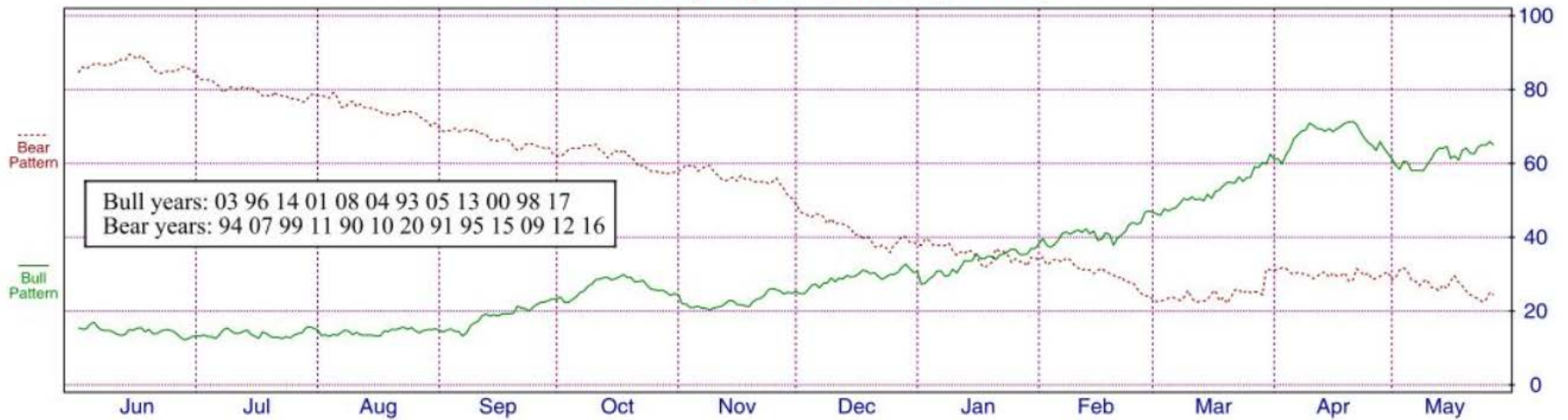


NATURAL GAS

June Natural Gas(NYM) Seasonal Patterns(1991-2020)

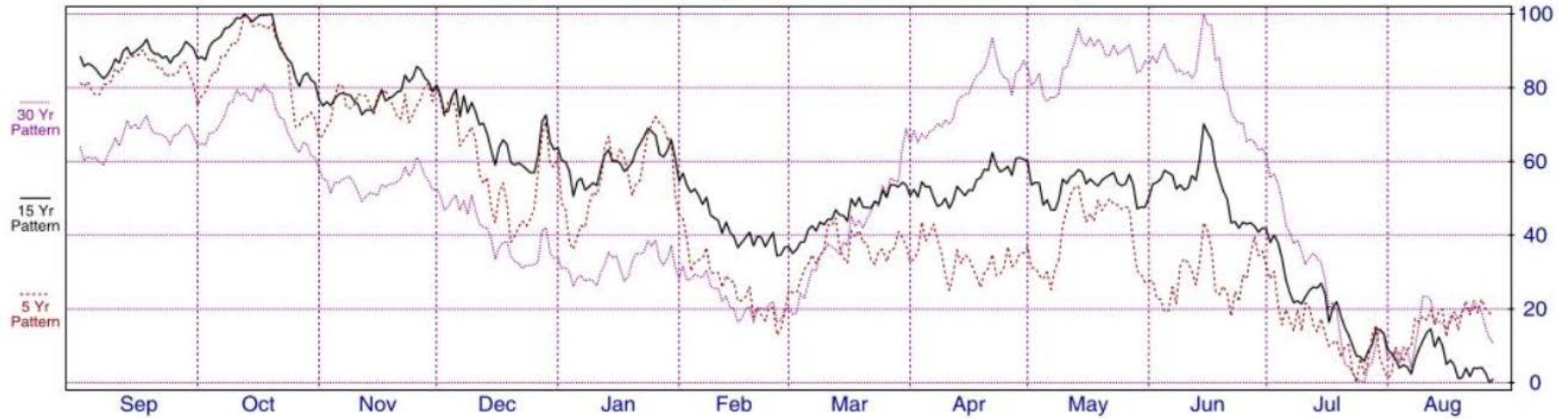


June Natural Gas(NYM) Bull/Bear Patterns(1990-2020)

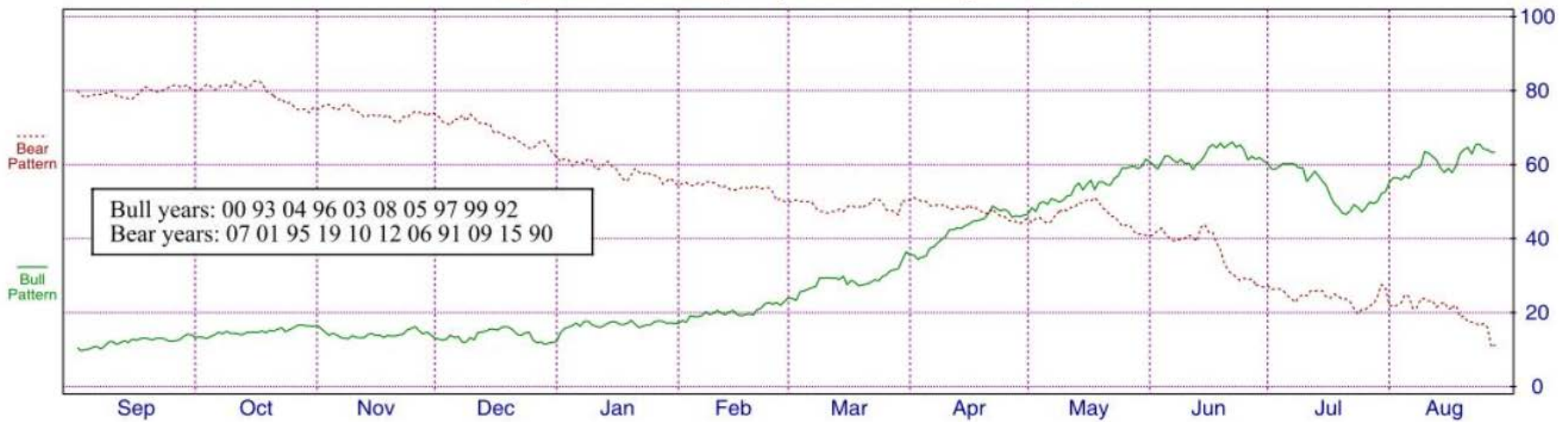


NATURAL GAS

September Natural Gas(NYM) Seasonal Patterns(1990-2019)

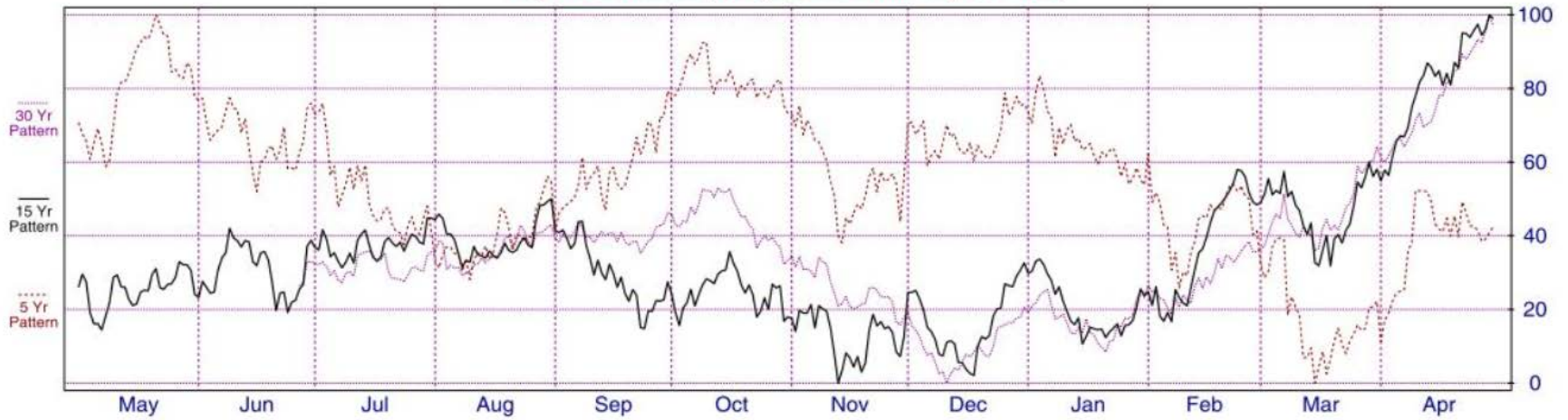


September Natural Gas(NYM) Bull/Bear Patterns(1990-2019)

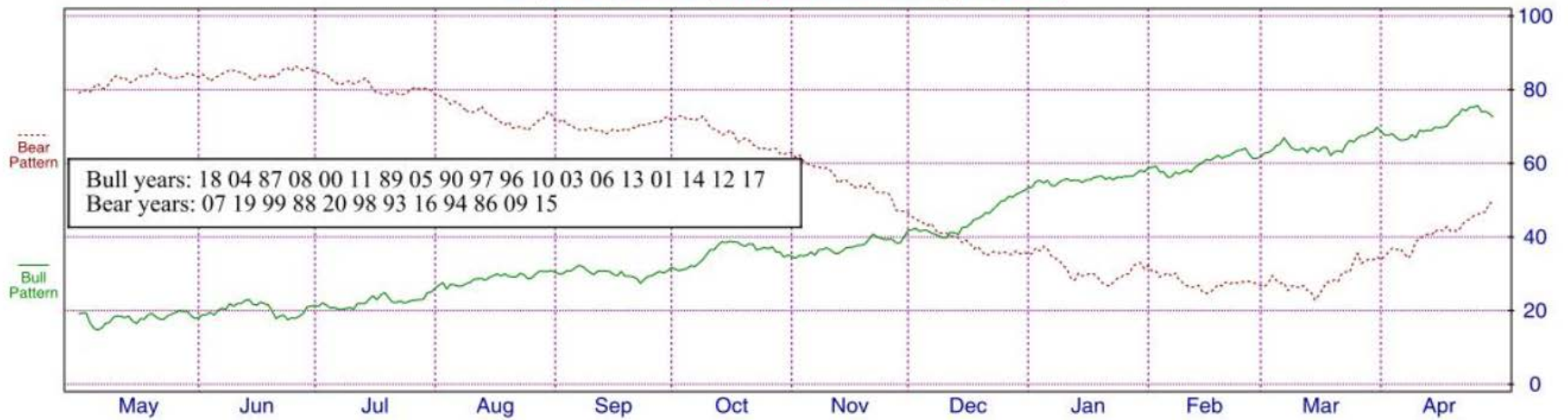


GASOLINE

May RBOB Gasoline(NYM) Seasonal Patterns(1991-2020)

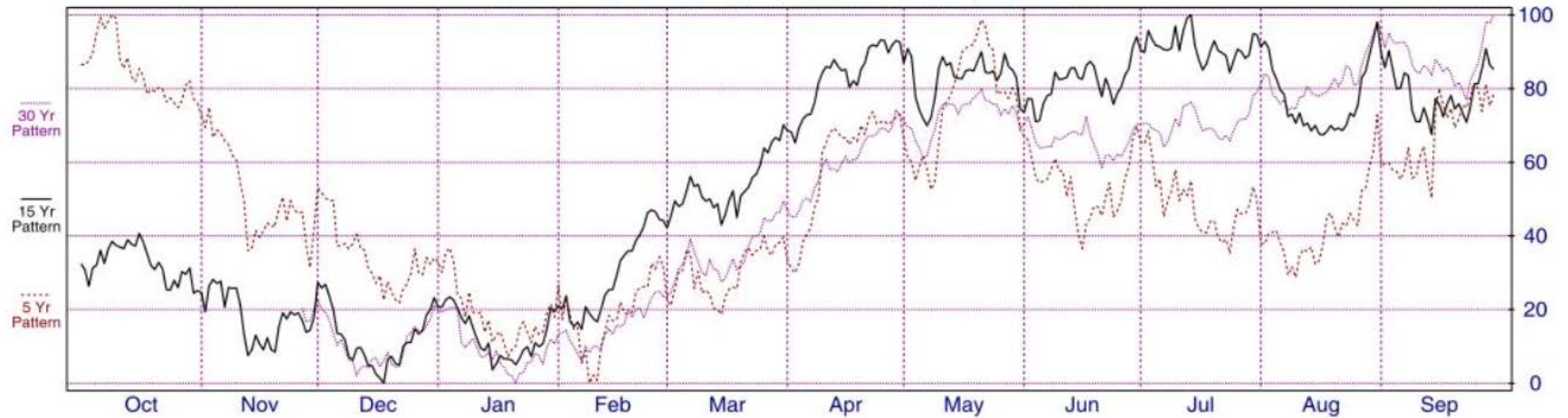


May RBOB Gasoline(NYM) Bull/Bear Patterns(1986-2020)

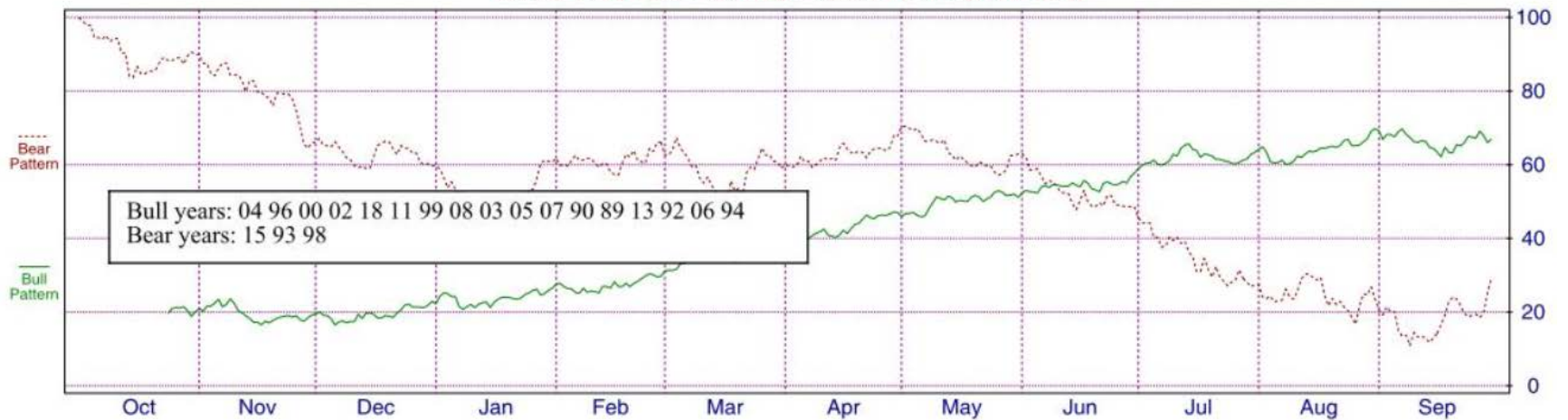


GASOLINE

October RBOB Gasoline(NYM) Seasonal Patterns(1990-2019)



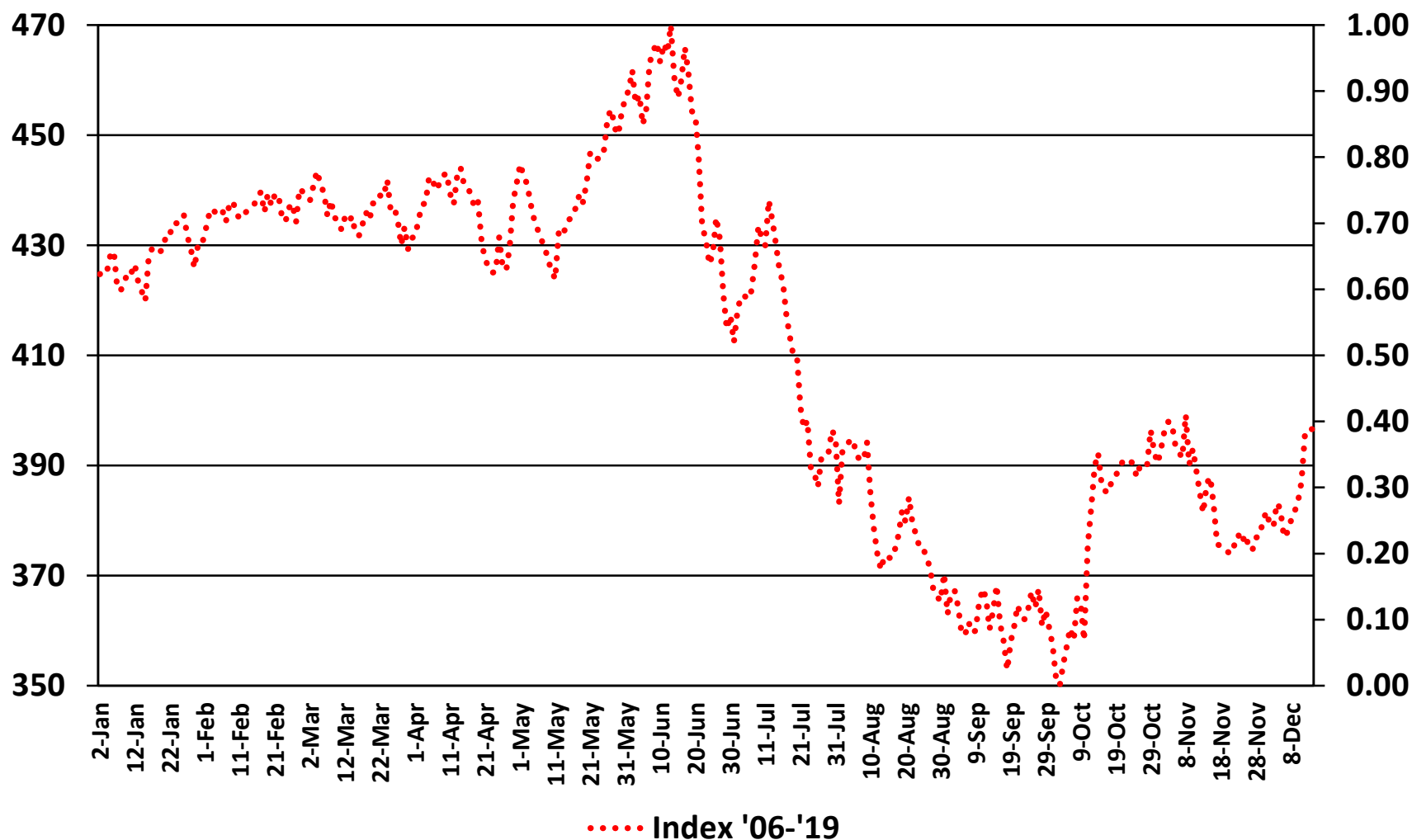
October RBOB Gasoline(NYM) Bull/Bear Patterns(1985-2019)



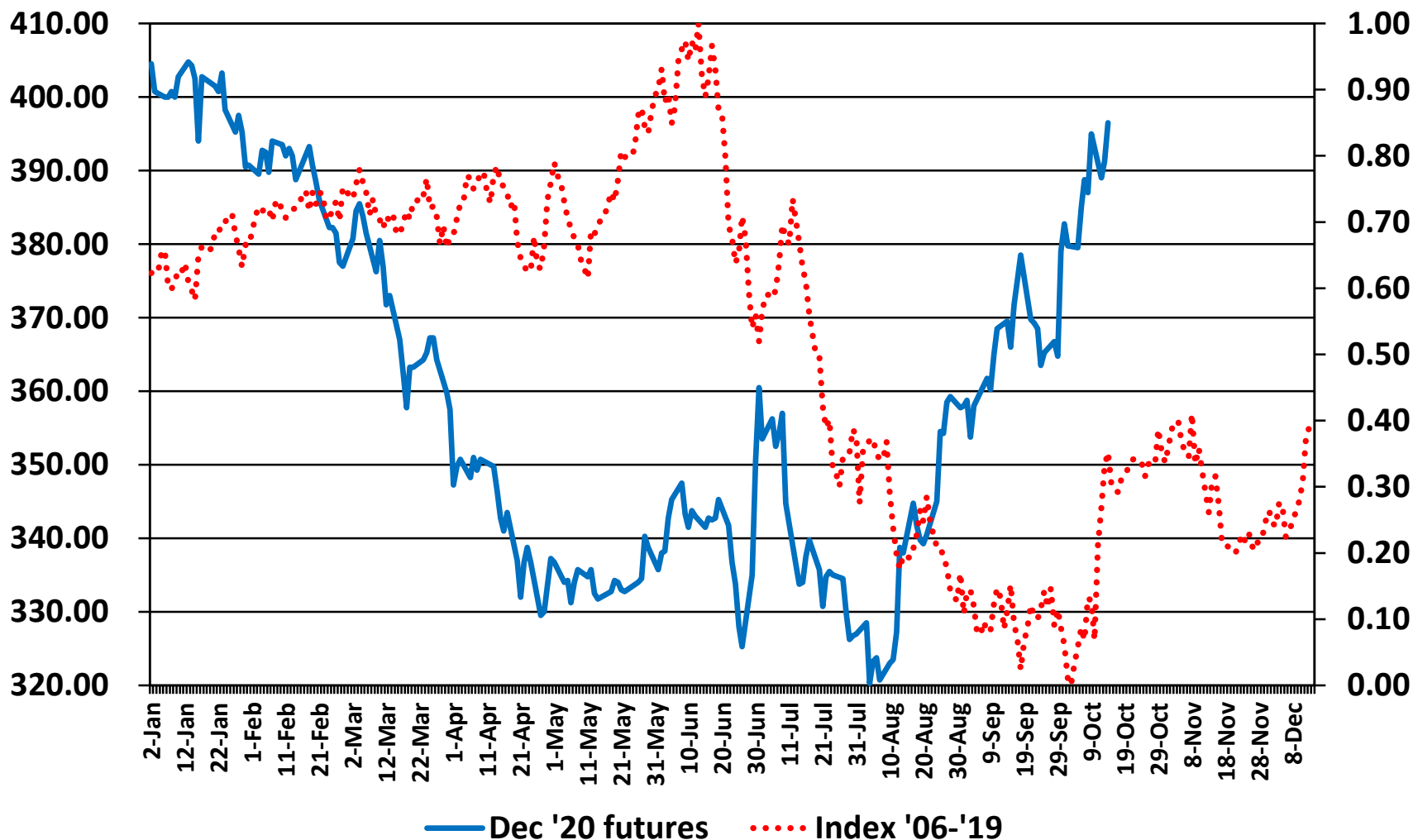
Counter-Seasonal Price Action

- Seasonal analysis is used as an input for supporting a trading strategy.
- Seasonal analysis can also detect markets that are not behaving right.
- A market decline (increase) during a period when prices are normally firm (soft) can be viewed as a sign of a market's inherent weakness (strength).
- Counter-seasonal action should be viewed as a potentially critical market feature.

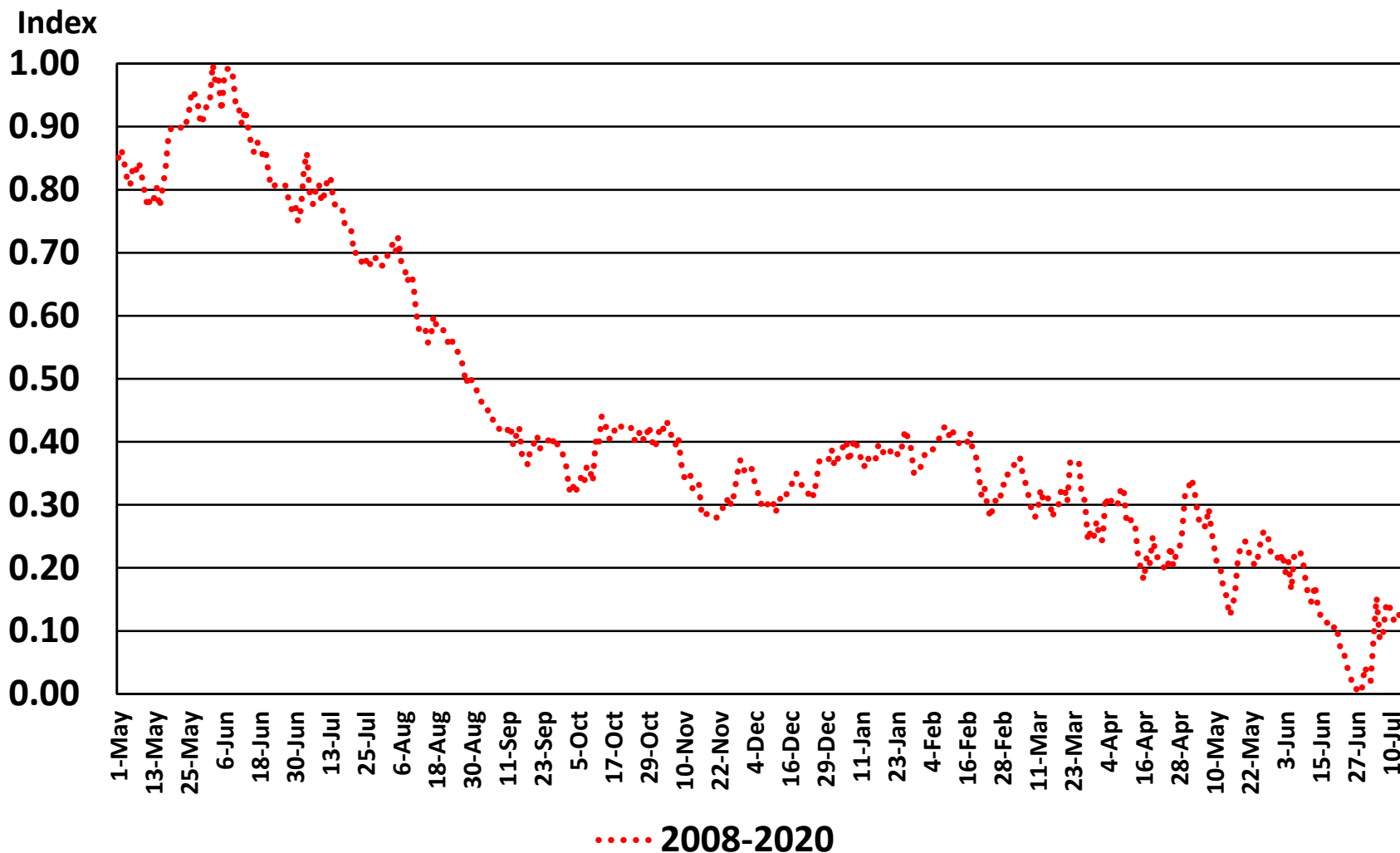
December Corn Futures Seasonal Index Pattern



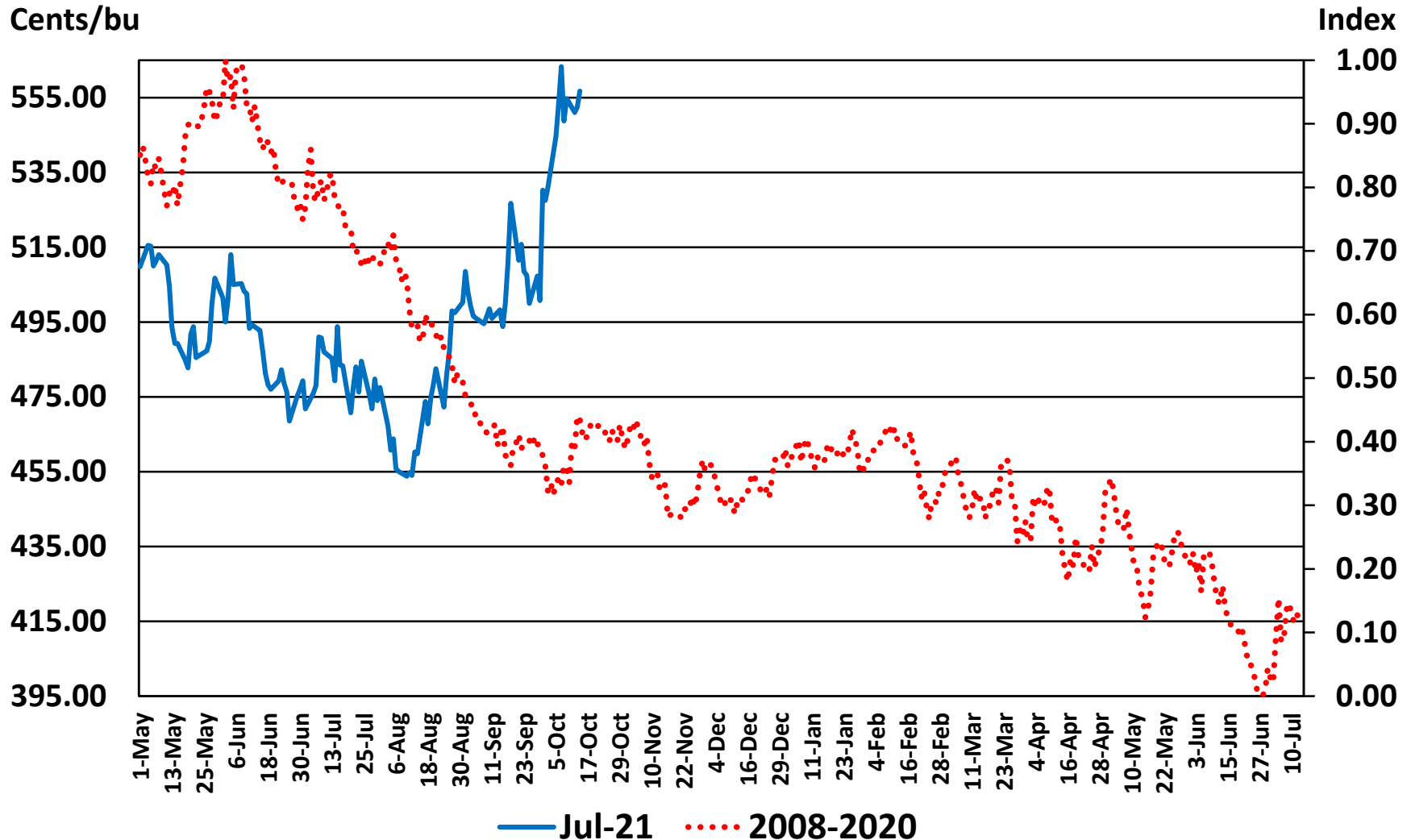
2020 December Corn Futures and Seasonal Index Pattern



July KC Wheat Seasonal Index 2008-2020



July 2021 KC Wheat Futures and July KC Wheat Seasonal Index 2008-2020



Alternative Approaches

- 1. Sell 100% of production at harvest (Oct 15)**
- 2. Sell a little each month of the year (10% for 10 months beginning on Jan 15)**
- 3. Market according to a target price (Total Costs plus 10%)**
- 4. Sell based on seasonal price tendencies by the calendar (Mar 1, Jun 15, Aug 1, Oct 15)**
- 5. Sell based on seasonal price tendencies using Moving Averages to time sales**

Marketing Results

1000 acres of corn at 180 bushels per acre:

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>14-yr Avg</u>
1. Harvest	3.17	3.62	3.88	3.73	5.55	6.41	7.37	4.44	3.48	3.76	3.54	3.51	3.78	3.93	4.30
2. Average	2.64	3.89	5.80	3.88	4.23	6.42	6.30	5.20	4.27	3.96	3.77	3.82	3.85	4.03	4.43
3. Target	3.17	3.62	4.57	4.25	3.78	5.25	5.36	4.60	4.35	4.37	4.29	4.14	4.13	4.25	4.30
4. Seasonal	2.74	3.84	5.78	3.98	4.34	6.49	6.53	5.01	4.12	3.82	3.75	3.82	3.90	4.15	4.45
5. Seasonal plus MA	2.73	3.72	6.10	3.87	4.70	6.47	6.67	4.99	4.16	3.95	3.64	3.80	3.85	4.10	4.48

Average over Harvest: +\$0.14 (+3%) \$341,100 or \$24,364/year

Seasonal over Harvest: +\$0.15 (+4%) \$378,900 or +\$27,064/year

Moving Average over Harvest: +\$0.18 (+4%) \$465,300 since 2006 or \$33,236/year

Price Seasonality Closing Comments

- **Virtually every commodity is subject to cash and futures contract price seasonality.**
- **Cash seasonal variation is generally 3%-10% depending on the commodity.**
- **Futures seasonal price variation is often double cash volatility.**
- **Understanding the “events” and fundamentals can magnify seasonal pricing opportunities.**
- **Incorporating seasonal pricing into a marketing plan can add 3 - 5% to a producer’s income.**