October 14, 2020 #1873

LOOKING FORWARD WITH A BACKWARD GLANCE

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<u>Sales Recommendations</u>: No Sales. See re-ownership info under <u>Pricing</u>. Next MNU by October 18th.

 Current Sales:
 2020
 sales:
 corn
 70 - 100%
 soybeans
 50 - 100%
 wheat
 60.0%

 2021
 sales:
 corn
 20%
 soybeans
 0%
 wheat
 68.0%

 2022
 sales:
 corn
 0%
 soybeans
 0%
 wheat
 0%

CFAP2 USDA Program: FSA opened the 2nd Coronavirus Assistance Program on September 21st. You have until December 11th, 2020 to apply for the program at your local FSA office. The program is based on your 2020 planted acres and livestock (*with limitations*) owned between April 16th and August 31st. Link: www.farmers.gov/cfap

Weather Trends: Over the last 6 years, on average, the Midwest has seen rainfall averaging anywhere from 5 to 10 or more inches above the longer term averages. This year that trend changed to 5 to 10 inches below average. If it were not for above normal precipitation for 2019 and into the earlier months of 2020, this year's production would have surely been a bust. Producers have commented on how dry it turned, their crops produced much better than they would have guessed. We know how much our high subsoil profiles nursed this year's crop along. Now that this crop has drained our subsoils and weather trends are moving in a direction where we must plan on having below normal precipitation for next year and possibly several years running, we must adapt our marketing strategies. Part of adapting to change is understanding the coming changes and why they are occurring. We would like to credit much of the following information to Chad Evans.

We have been in a dominant wet, cooler pattern, without a lot of violent severe outbreaks or drought, since 2014. We have been at a solar minimum with positive PDO, positive PNA & weak ENSO events mostly. We have written about this MAJOR solar minimum for 2-years now and about its future effects on our climate.

We are in a cycle that is reverting back to a pattern more like that of 2010-2012 and/or like 1999-2001 (increasing sun activity after Solar Cycle 24, flip to negative PNA, negative PDO & warm phase AMO). This pattern features greater severe weather outbreaks in the Midwest in the spring, with repeated outbreaks, some violent, with greater potential of drought in summer & fall (example.....1886 spring was very violent & we saw violent weather in the fall, but it actually turned droughty in summer to fall).

Often, such periods have a sequence of outbreaks where you see severe weather over a region day after day for a week or two on-ends, often with higher risks like *ENHANCED*, *MODERATE*, day after day, with occasionally an apex of *HIGH RISK*.

We have not had a sequence of severe weather outbreaks in a row over a period of time on a substantial scale since 2010 & 2011. In 2010, there were 21 consecutive days in June with

severe weather events & outbreaks every few days. We need to pay attention if we see these types of weather occurrences in 2021.

We have not seen a *Significant Drought* in the Midwest since 2012, though we have had a few pockets of *Moderate Drought* over the past 7 years. Moderate to Severe Drought is expanding from the Southwest and West, across the Midwest, which is what we are experiencing right now.

In 1954 – 1956, 1973 – 1975 & 1987 – 1989, La Nina's also come to mind. Violent outbreaks of severe weather occurred in 1973, with 2 big outbreaks in 1974 and a big winter outbreak in the winter of 1974 – 1975. Drought hit hard in the summer of 1974 and there was a lack of intense cold in the winters of that period. In 1976, we experienced not only a continuation of the on-going drought from the previous 2-years, but one of the hottest summers on record, with temperatures above 100 to 105 degrees not uncommon.

Drawing on the past, this budding La Nina developed very quickly in the 3^{rd} quarter of 2020, building its strength in the 4^{th} quarter of 2020. We look for this La Nina to ramp up for the winter months of 2020 - 2021, lasting into the summer & fall 2021. *This one looks to be the strongest & lengthiest since 2010 - 2012 or 1999 - 2001*.

Despite more violence & greater severe weather episodes in both springs (we have not had an F4/EF4 tornado since 1994 and we average one every 14 years), so we are overdue. We are currently in our longest F4/EF4 tornado drought since the 1930s. Widespread drought should return to our area, with varying intensity, during 2020 - 2022.

We average **2** *HIGH RISK* days per decade. Based on history and weighing the odds, 2021 could be the 1st occurrence of the decade. They often coincide with strong La Nina.

A semi-permanent, upper ridge has developed in the Southeast. This heat and dryness & La Nina will enhance and expand this ridge. Significant drought may also occur from Texas to the Southeast and it will pulse and engross the area at times. Other times, we may be under that pattern of lots of storms and heavy rainfall (*with tornado risk*).

As we move forward into this new trend dominated mostly by La Nina events, we expect to be in for more drought and more sustained drought. We should witness 100 to 105 degrees again, something we have not seen since 2012. We have been close on a couple of occasions, but we did not reach or exceed it in many areas in any of the summers & falls over the past 7 years, though we came really close in May 2018!

On the flip side, we should see less of the cold, wet springs, which have linger on for years on end. We have had to deal with wet, wet springs for years now as we get deeper into this New Era, wet to very wet springs should be greatly lessened.

Thus, with a weak to moderate La Nina:

Spring just starting to trend to La Nina - Cooler, wetter than normal

2020 Summer La Nina developing - Normal temperatures, wetter, and then developing a drought

2020 Fall La Nina - Warmer, dryer/below normal precipitation

2020-21 Winter strong La Nina - Warmer than normal, wetter, drought possibly squashed, severe weather possible

2021 Spring strong La Nina - Warmer, very active severe weather, slightly wetter

2021 Summer La Nina - Developing drought again, intense heat

2021 Fall La Nina - Drought, heat

Winter 2021-2022 – Trend to neutral, then weak El Nino - Normal temperatures, normal snowfall, normal rainfall

With a Strong La Nina:

A greater potential of a wet winter, with random, severe weather in the winter.

More violent, more frequent severe outbreaks in the spring.

Warmer springs

Increased frequency of summer and fall drought.

Increased likelihood of 100 degrees or greater and an increased likelihood of intense, significant heat waves

