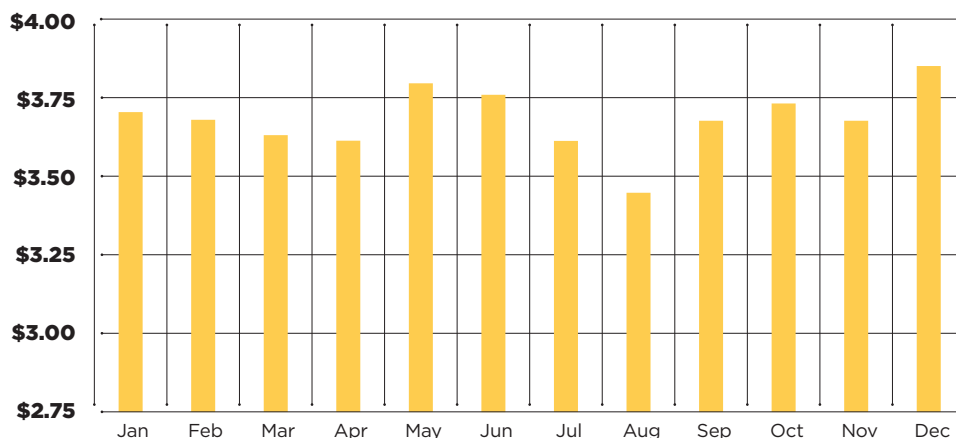


## SEASONAL CORN PRICE SIX-YEAR AVERAGE (MONTHLY)

Average Price per Bushel



# ALGORITHMS EXIST IN AG TRADING

A basic one is called seasonal odds selling.

By Al Kluis

Every year or two, I enjoy going to investment conferences to try to learn more about investing, analysis methods, and trading. These days, it is easier than ever to attend, since many are virtual. One conference that invited me to “attend” was about algorithms (the math formulas used in computing), but I thought it might be too tough for me. The material was technical and challenging. However, I gave it a shot and listened carefully. I watched the speaker demonstrate how algorithms can be used to make buy and sell signals ... and it clicked. It made sense.

Over the following weeks, I reviewed my algorithm class notes many times. I knew it was important that I understand these concepts at the deepest level because they are now widely used tools in the markets. In the grain markets at the CBOT, the majority of buy and sell orders are computer-driven. Many funds and traders use algorithms in elaborate combinations to manage trading and risk.

Early one morning as I was studying my charts, I realized that some of what I have been doing for the past 40 years is a type of algorithm. Over the years, I have developed

a series of written rules to help me make decisions about the timing of grain sales and hedges. These time-tested rules take the emotion out of making critical marketing recommendations, and they help me create marketing plans for the farmers I work with.

Here is what I learned in algorithm class: Rules are algorithms. The definition of an algorithm is “a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.”

One very basic algorithm that I use is “seasonal odds selling.” (You may have heard me say this rule enough that you, too, already know an algorithm!) I make cash corn and soybean sales between late April and early July. In that same time period, I also place new-crop corn and soybean hedges, buy put options, or do both.

When I first began the seasonal studies, I wrote down CBOT closing futures prices for corn, soybeans, and wheat. I filled up several three-ring binders with numbers and charts. These days, I put the data on my computer, saved on several Excel spreadsheets. This allows me to study the data in many different ways and over different time periods. I like

This is the corn seasonal odds chart going back for 12 years. This chart shows how corn moves lower into April, rallies into May, and then moves down to the low in late August. From that early harvest low, prices rally up to the postharvest high in December. I plan to use the spring rally to get a lot of new-crop corn protected with hedges and puts. If you are in a dry area, consider using more puts.

looking at patterns over five years, 10 years, and 20 years. I like looking at patterns in even and odd number years and in election years. Seasonal selling is a very basic concept, and now you can call it an algorithm, too. The most important part is that the seasonal odds concept has worked 40 out of the last 44 years.

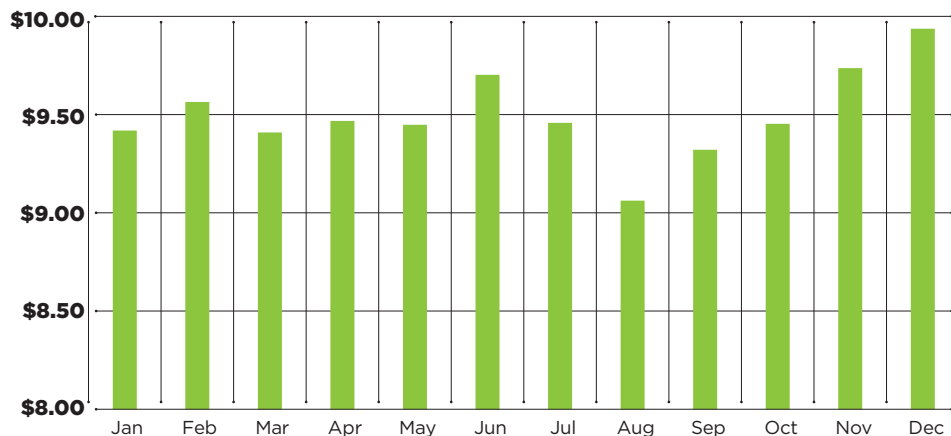
A second type of algorithm is “price targets.” Once I observe a seasonal low in new-crop corn and soybeans, I establish some initial price targets. I look for a minimum 40¢ rally in corn futures and 90¢ in soybean futures. I further refine these price targets to make sure they are above the cost of production for my clients. A third consideration is to try to put on the hedges at or above the February RP crop insurance price guarantee.

In the past 10 years, I am amazed at how these three methods often result in price targets clustered within 10¢ per bushel for corn and 35¢ per bushel for soybeans.

This combination of algorithms has worked well. In eight of the last 10 years, this approach had us place hedges that looked great at harvest. From 2010 through 2020, we usually had 20% ▶

## SEASONAL SOYBEAN PRICE SIX-YEAR AVERAGE (MONTHLY)

Average Price per Bushel



to 50% of the new-crop December corn hedged between \$4.18 and \$4.40. For the new-crop November soybean futures, the hedges have been placed between \$10.18 and \$10.80.

Note that this combination has not created trading or hedging profits every year. For example, in 2012 and 2020 we delivered on hedges that were below the market at harvest.

Each year, when the new-crop hedges are delivered, I begin to develop time and price plans for the balance of the cash inventory that needs to be sold.

A more advanced algorithm I use I call "trading range." From the harvest (or fourth-quarter) low on my long-term continuation charts, I begin to make price projections. I figure out what price is my minimum price target and maximum price target. I use what I call projected trading range or PTR (low to minimum high) and the extended trading range or ETR (low to maximum high).

### To make these projections I also look at these three factors:

- #1.** What is the relative price level? It is easier to be bullish on corn price outlook when CBOT futures are below \$3.30 than when CBOT corn futures are trading over \$4.00. Also, for soybeans, it is easier to be bullish when prices are below \$9 than when they are over \$11 a bushel.
- #2.** Where are we in the long-term grain

price cycle? I had a lot of indicators for a low in August 2016. Now, five years later, it will be dangerous to get bulled up in 2021. The five-year cycle is getting ready to turn.

**#3.** What is the trend in global and U.S. ending stocks? The current USDA supply/demand reports are bullish, but this can change very fast later this year.


Those are three of my most important algorithms: seasonal selling, price targets, and trading range.

How can you apply them to your market-plan in 2021?

**Be a seasonal seller.** I expect that the farmers who make cash corn and soybean sales in May through June and get new-crop hedges in place will like the results this fall.

**Place new-crop hedges** on your 2021 and 2022 crops on any spring and summer rally that develops. The key is to pick price targets that work for your farm. This is not a "pick-the-top" strategy. That is never my goal. Instead, this is a spreadsheet decision based on the price and profit levels you can lock in.

### Make five or even 10 new-crop hedges.

Odds are good that you'll get close to the high with some of the hedges and end up with a better average selling price than if you try for one big sale at the top. This takes discipline. The news will be really bullish at the top, just like it was really bearish last April. (That is all the more reason to use algorithms and logic to make your decisions ahead of time.) 

This is the soybean seasonal odds chart going back for 12 years. This chart shows how soybean prices move lower into March, rally into June, and then turn lower into August. From the early harvest low, prices will usually rally back into December. I plan to use the rally into June to get more new-crop soybean prices protected with hedges and puts.

**Note:** The risk of loss in trading futures and/or options is substantial, and each investor and/or trader must consider whether this is a suitable investment. Past performance – whether actual or indicated by simulated historical tests of strategies – is not indicative of future results. Trading advice reflects good-faith judgment at a specific time and is subject to change without notice. There is no guarantee that the advice given will result in profitable trades. •

## Al Kluis Commodity Trader

Al Kluis has been trading grain futures since 1974. Sign up for a free trial to his daily morning email and weekly

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