Fuel Price Seasonality - Winter 2026

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Introduction[1]

Fuel prices fluctuate throughout the year, and sometimes the variations can be significant. Experienced drivers have likely observed that certain times of the year tend to have lower fuel prices compared to others. This pattern is known as seasonality, and it's particularly noticeable in gas prices. While diesel prices can also exhibit seasonality, it's less apparent. Farmers with fuel storage facilities can leverage this seasonality to strategically time their fuel purchases during the low-price period of the year. This paper analyzes both gas and diesel seasonality using data from the last five years, covering monthly fuel prices.

Seasonality

Seasonality is the monthly variation of prices compared to the yearly average price. Historically, gasoline prices are very seasonal. Prices for gasoline tend to be lower in the winter and higher from Memorial Day though Labor day. The reason for the seasonality in gasoline prices is because more driving takes place during the summer. Families tend to take vacations and other trips during the summer thus increasing the demand for gasoline which in turn results in higher prices. During the winter, less driving occurs so prices are lower.

Diesel fuel also exhibits some seasonality but the effect is smaller. At one time, diesel prices were correlated to the heating oil market which meant higher diesel prices in the winter. This is no longer the case as large equipment and truck use dominate the diesel market. Prices in the winter for diesel fuel are usually a little lower than other times during the year. While the diesel fuel price exhibits less seasonality than gasoline, there is still some effect and there are times during the year when farmers should consider buying diesel fuel.

Figures 1 and 2 show the monthly seasonality based on the last 5 years of monthly price data from the Energy Information Administration. To calculate seasonality, the average price for each year is calculated. For a specific month in a year, the difference between that month's price and the yearly average price is calculated. This difference is plotted as a black dot in each graph. The red diamond then represents the average of the 5 years of seasonality for that particular month. The variation of the black dots gives some

idea of how much variation there is in the monthly seasonality. As shown in Figure 1 and 2, August has a very little variation (both gas and diesel). In fact, the August diesel price is a pretty good indicator of what the yearly average price is going to be.

As unfortunate situation for farmers about diesel fuel prices is that the highest prices for diesel fuel typically occurs during the fall harvest season. As shown in Figure 2, diesel prices are about $0.15 higher than average during October and November.

However, there are also some periods where diesel prices are below average. During January and February, prices tend to be about $0.25 lower than average. While January has the lowest average price it also has the largest monthly variation. During the last 5 years, January diesel prices have been more than $1 below average to $0.40 above average.

With gasoline prices, the seasonality is clear. The prime driving season from May through September has prices well above average. June has the highest price above the yearly average with a premium of $0.25. January has the lowest average price at nearly $0.30 below the yearly average. Like with diesel, the gasoline price in winter has considerable variability. Notice that in January, the price in each of the last 5 years has always been at or below the yearly average. With current gasoline prices, January is again looking to be the low price point for the year.

Recommendations for farmers

February has historically been one of the lowest cost months to purchase fuel. This is especially true for gasoline. However, most farmers should give serious consideration to purchasing their spring fuel in February. Also, farmers should look at purchasing their harvest fuel in August. By purchasing several months ahead for diesel, farmers can hit the historically lower priced months of February and August and avoid the higher priced months during the spring and fall. The seasonality strategy for purchasing fuel is certainly not foolproof as any given year can run counter to what the average shows. However, over a long enough time frame the strategy can work and save farmers some money.

Farmers should also keep the diesel price premium in mind. As shown by Ibendahl, the current diesel price premium relative to gasoline is higher than normal right now. Thus prices could decline slightly during the next few months.

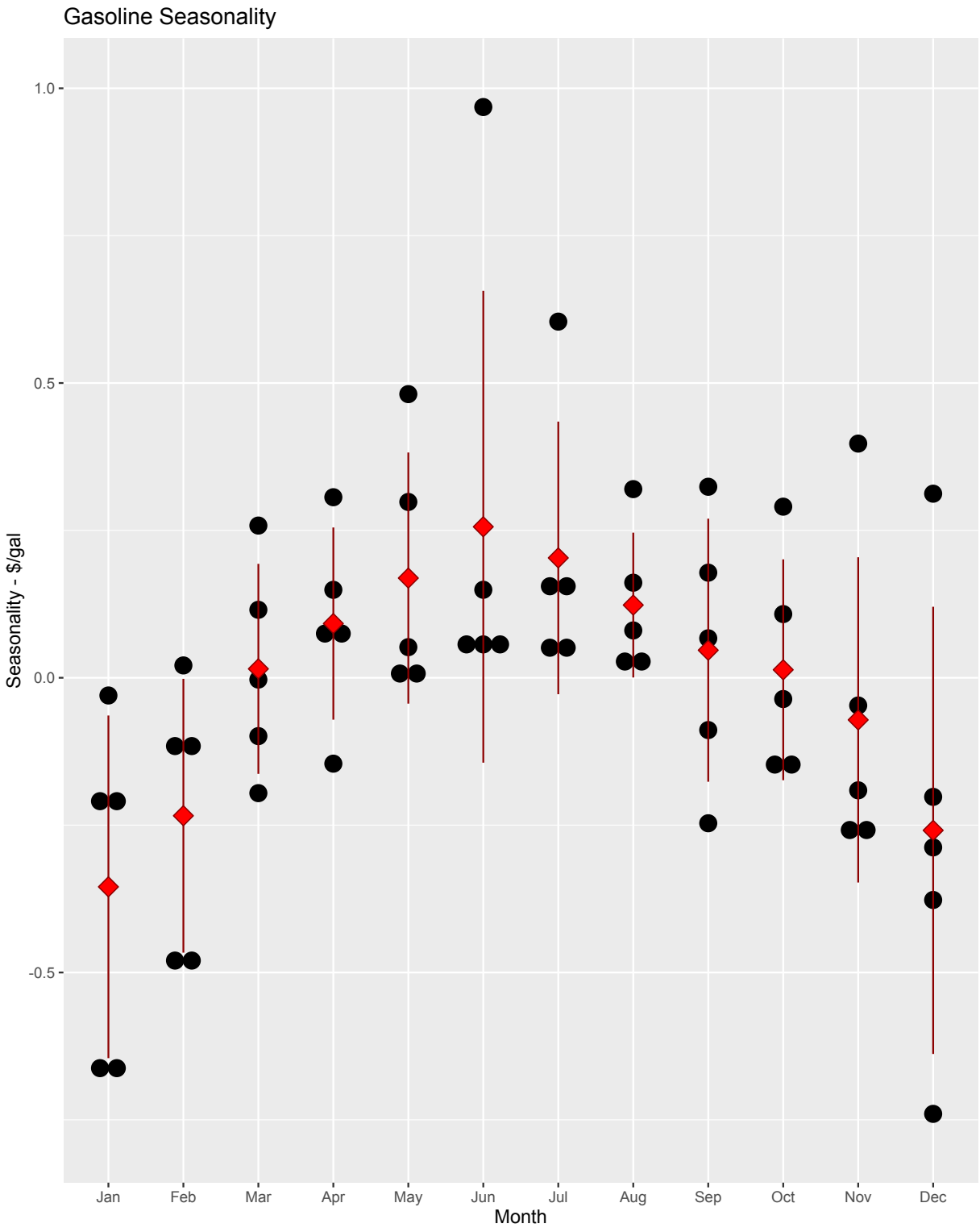

Figure 1. Gasoline Price Seasonality

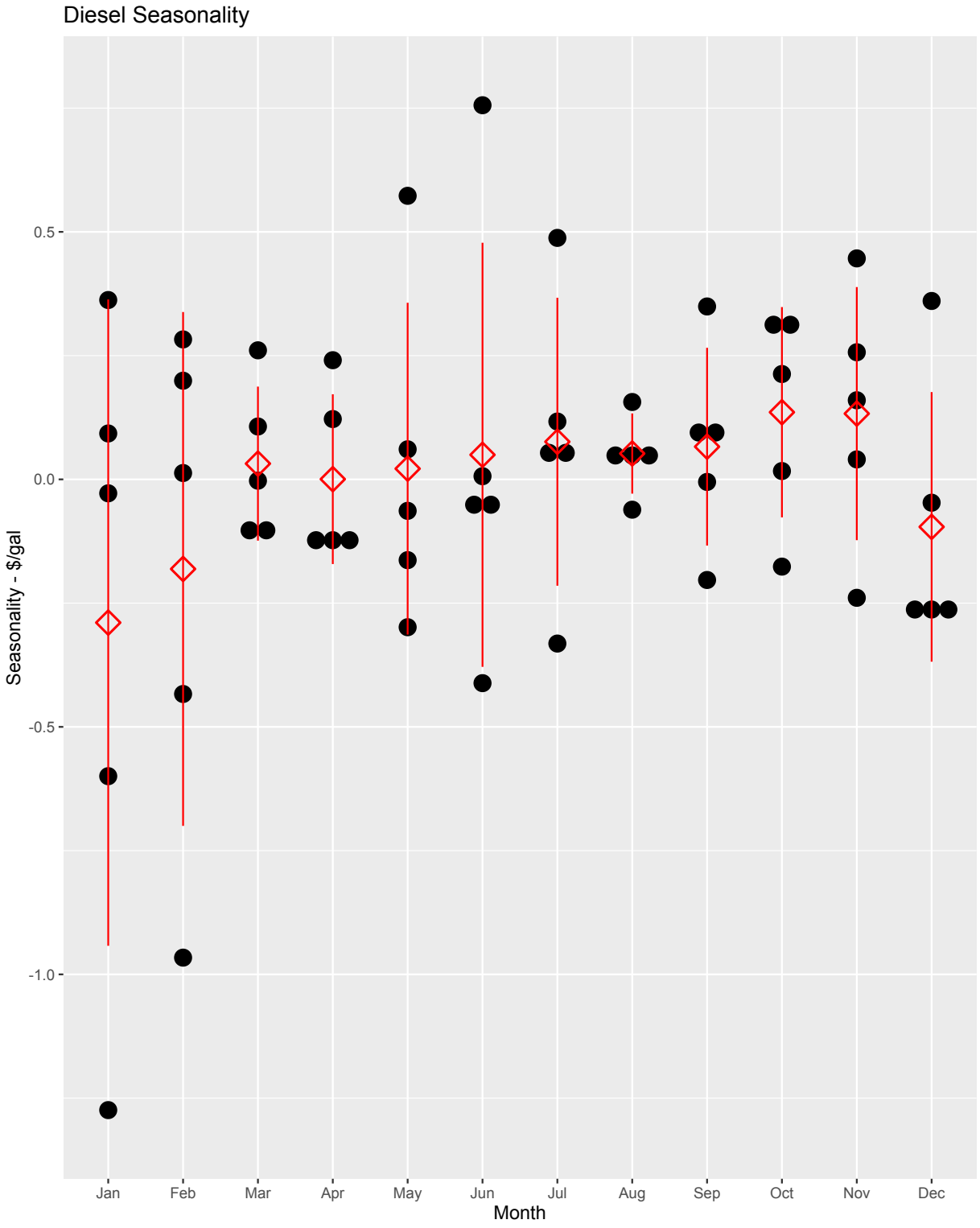

Figure 2. Diesel Price Seasonality

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