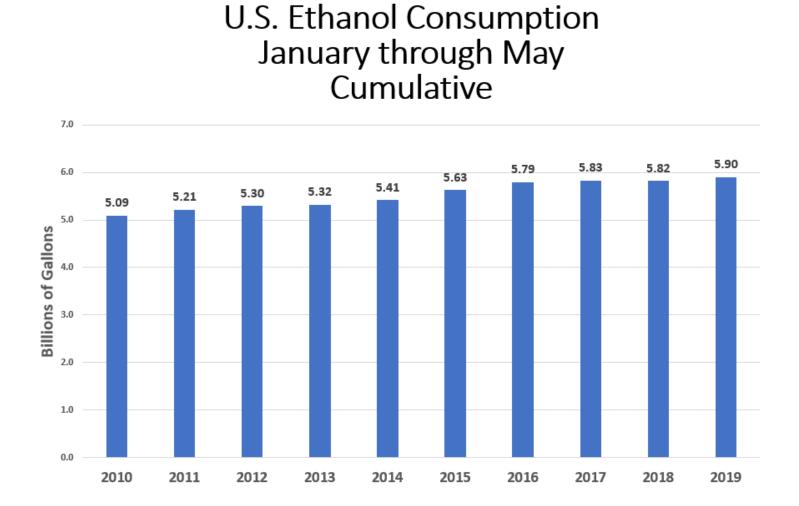
The biofuel industry, facing poor margins due to overproduction and declining exports, is trying various tactics to force more ethanol and biodiesel into the U.S. fuel supply. They currently claim that <u>small</u> refinery exemptions (SREs) — critical tools protecting small fuel manufacturing facilities from disproportionate economic harm brought on by the federal <u>Renewable Fuel Standard</u> (RFS) — are "destroying demand" for biofuels.

However, U.S. Energy Information Administration data shows no evidence of ethanol or biodiesel demand destruction this year versus last year (see data below). While SREs may have impacted the price of Renewable Identification Numbers (RINs), they have not impacted renewable fuels consumption. In fact, ethanol and biodiesel consumption are up this year compared to previous years.

Reallocating exempted 2018 RFS volume obligations, as the biofuel industry is encouraging the administration to do, would not be expected to impact renewable fuels consumption — but it would likely raise the cost of RINs and RFS compliance for fuel manufacturers and adversely affect small refineries that have demonstrated economic harm.

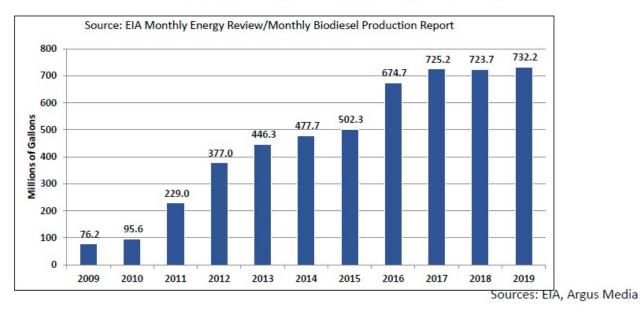
The current SRE policy works for refiners with no impact to farmers and should be maintained.

Total consumption of ethanol is up for the first five months of 2019 as compared with all prior years, suggesting there has not been ethanol demand destruction from Small Refinery Exemptions (SREs) granted for years prior to 2018.

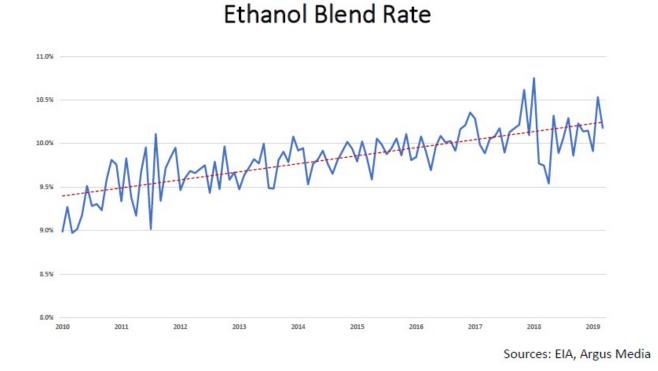


Biodiesel consumption for the first 5 months of 2019 is up versus all prior years, suggesting there has not been biodiesel demand destruction from SREs granted for years prior to 2018.

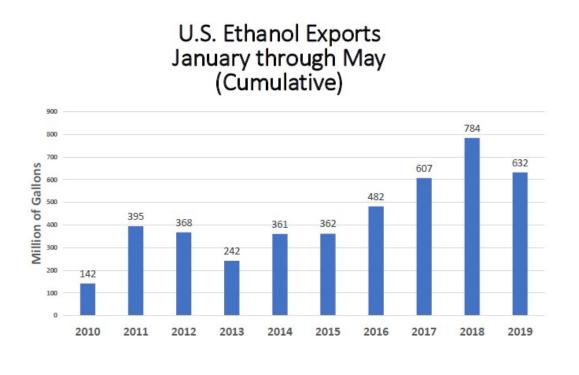
U.S. Biodiesel Consumption January through May (cumulative)



A simple linear trend line applied to ethanol content of gasoline suggests it is increasing.

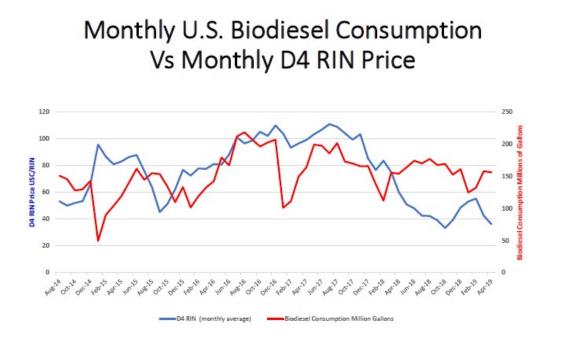


Exports of ethanol are down by about 150 million gallons as compared with 2018.



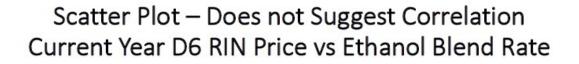
Sources: EIA, Argus Media

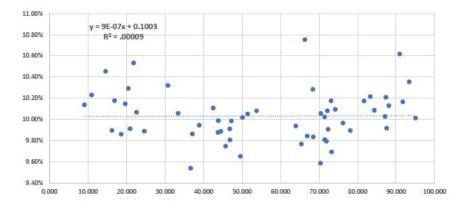
A comparison of current year average monthly D4 RIN price to monthly biodiesel consumption does not reveal a strong relationship. It shows periods of possible positive correlation but also periods of possible negative correlation.



Sources: EIA, Argus Media

A scatter plot of D6 RIN prices against the ethanol blend rate reveals that there is no correlation between D6 RIN prices and ethanol blending.





Sources: EIA, Argus Media

A regression analysis of D6 RIN price and the ethanol blend rate affirms no correlation – R squared of .00009

Regression Analysis

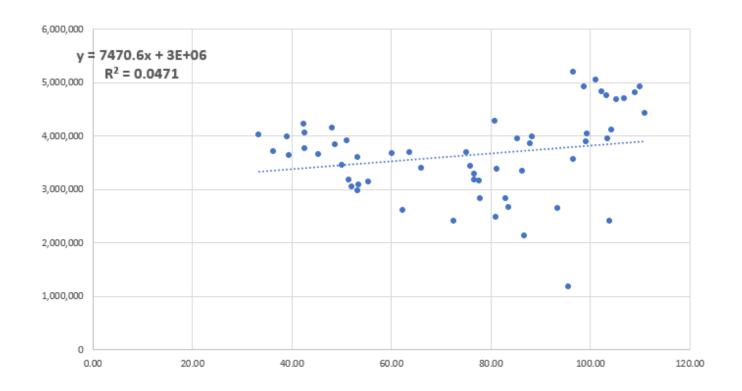
SUMMARY OUTPUT: Ethanol Blend Rate a function of D6 RIN Price **Regression Statistics** R Squared suggests no correlation between Ethanol Blend Multiple R 0.00925646 Rate and D6 RIN Price R Squared 0.00008568 Adjusted R Square -0.017769931 Standard Error 0.00238313 Observations 58 ANOVA df SS MS F Significance F 0.00479860 1 2.72528E-08 2.72528E-08 Regression 6 0.945019906 Residual 56 0.000318041 5.67931E-06 Total 57 0.000318069 Coefficients Standard Error t Stat P-value Lower 95% Upper 95% Lower 95.0% Upper 95.0% 1.21233E-0.098763182 0.101794193 0.098763182 0.101794193 0.100278688 0.000756527 132.5513963 Intercept 71 0.94501990 8.63534E-07 1.24658E-05 0.069271971 -2.41086E-05 2.58356E-05 -2.41086E-05 2.58356E-05 X Variable 1 6

R-squared (R2) is a statistical measure that represents the proportion of the variance for a dependent variable that is explained by an independent variable or variables in a regression model.

Sources: EIA, Argus Media

A scatter plot of D4 RIN price against biodiesel **consumption** does not reveal a strong relationship between D4 RIN price and biodiesel consumption.

Biodiesel Consumption & D4 RIN Price



A regression analysis suggests an R Squared of ~.05 — almost no correlation.

Regression Analysis Biodiesel Consumption & D4 RIN Price

SUMMARY OUTPUT

X=RIN Price Y = B100 Consumption

Regression Statistics						
Multiple R	0.217842333					
R Squared	0.047455282					
Adjusted R Square	0.029815565					
Standard Error	23.07053805					
Observations	56					

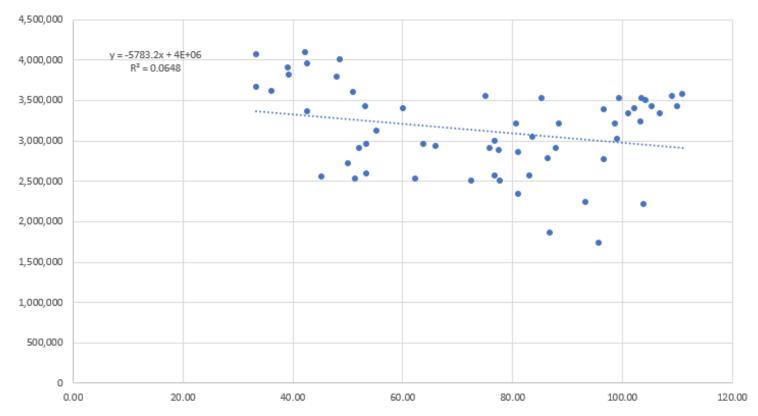
R Squared suggests very minimal correlation between Biodiesel Consumption and D4 RIN Price

ANOVA

	df	SS	MS	F	Significance F			
Regression	1	1431.88583	1431.88583	2.690251888	0.106776969			
Residual	54	28741.4852	532.2497259					
Total	55	30173.37103						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	53.06561583	14.29768255	3.711483707	0.000488655	24.40048822	81.73074345	24.40048822	81.73074345
3596994	6.27871E-06	3.82802E-06	1.640198734	0.106776969	-1.396E-06	1.39534E-05	-1.396E-06	1.39534E-05
SUMMARY OUTPU X	(=Price Y=Productio	on						
Regression .	Statistics							
Multiple R	0.261739884							
R Square	0.068507767							
Adjusted R Square	0.051571544							
Standard Error	23.26536562							
Observations	57							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	2189.490307	2189.490307	4.04504412	0.049212282			
Residual	55	29770.24806	541.2772374					
Total	56	31959.73836						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	110.9904683	18.05187563	6.148417514	9.25425E-08	74.81370112	147.1672355	74.81370112	147.1672355
2952380.952	-1.14479E-05	5.692E-06	-2.011229505	0.049212282	-2.28549E-05	-4.08954E-08	-2.28549E-05	-4.08954E-08

A scatter plot of D4 RIN price against biodiesel **production** does not reveal a strong or consistent correlation between D4 RIN price and biodiesel production.

Linear Regression Biodiesel Production & D4 RIN Price



A regression analysis suggests an R Squared of .06 — a very minimal correlation.

Regression Analysis Biodiesel Production & D4 RIN Price

SUMMARY OUTPUT

X=Price Y=Production

Regression Statistics						
Multiple R	0.261739884					
R Square	0.068507767					
Adjusted R Sq	0.051571544					
Standard Erro	23.26536562					
Observations	57					

R Squared suggests very minimal correlation between Biodiesel Production and D4 RIN Price

ANOVA

	df	SS	MS	F	Significance F
Regression		2189.49031	2189.49031	4.04504412	0.049212282
Residual	55	29770.2481	541.277237		
Total	56	31959.7384			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	110.9904683	18.0518756	6.14841751	9.2542E-08	74.81370112	147.1672355	74.81370112	147.1672355
2952380.95	-1.14479E-05	5.692E-06	-2.0112295	0.04921228	-2.28549E-05	-4.08954E-08	-2.28549E-05	-4.08954E-08

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