ABF Economics
Agriculture and BioFuels Consulting, LLP

CONTRIBUTION OF THE RENEWABLE FUELS INDUSTRY TO THE ECONOMY OF IOWA

Prepared for the Iowa Renewable Fuels Association

John M. Urbanchuk
Managing Partner, ABF Economics

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EXECUTIVE SUMMARY

The renewable fuels industry is multifaceted, adding substantial value to agricultural commodities produced in Iowa. Based on its size and scope, the renewable fuels industry had the following impacts on Iowa's economy in 2023:

- Accounts for more than $6.5 billion, or about 3 percent, of Iowa GDP
- Generates $3.2 billion of income for Iowa households; and
- Supports almost 52,000 jobs throughout the entire Iowa economy. This is equivalent to about 3 percent of total state employment.

BACKGROUND

The biofuels industry in Iowa grew slightly in 2023 as the economy improved and the regulatory environment was relatively benign. Growth in real economic output was accompanied by gains in employment and a recovery in real disposable income. Led in large part by lower crude oil and gasoline prices, the inflation rate fell from the 40-year high record set in in 2022. These developments supported gains in both gasoline and ethanol demand during the year. Motor gasoline and ethanol use each increased nearly two percent over year earlier levels during the first eleven months of 2023.

The most significant economic development experienced by the biofuels industry during 2023 was a significant improvement in feedstock, natural gas, and other input costs. Iowa corn prices averaged $5.89 per bushel during 2023, 17.1 percent below 2022 levels, soybean oil and other fats and oil prices were down nearly 20 percent, while Iowa industrial natural gas prices fell 22 percent. Feedstock and natural gas alone account for about 80 percent of operating costs.

While input costs declined in 2023, so too did the prices of ethanol and ethanol co-products, distillers dried grains (DDGS) and distiller's corn oil (DCO) from dry mills and wet mill co-products corn gluten feed (CGF) and corn gluten meal (CGM). Iowa ethanol prices fell more than 10 percent in 2023, while the average price of co-products fell 13.5 percent. Reflecting this, ethanol industry returns over operating costs (EBITDA) averaged an estimated $0.36 per gallon, 7.5 percent below 2022 returns.[1] The biodiesel industry experienced another difficult year as declines in biodiesel prices exceeded lower input prices. Returns over operating costs for Iowa biodiesel plants improved from 2022 levels but were still negative at nearly $0.50 per gallon. It is important to note that these estimates are industry averages. Financial results for any individual plant or operating unit can vary reflecting a wide range of managerial and operational variables.

At year's end, Iowa's 42 ethanol plants produced an estimated 4.6 billion gallons in 2023, slightly up from 2022 levels while production in Iowa's 10 operating biodiesel plants produced 350 million gallons, virtually unchanged from 2022. Iowa remains the nation's leading ethanol and biodiesel producer, accounting for nearly 30 percent of U.S. ethanol and 21 percent of biodiesel production.

[1] EBITDA (earnings before interest, taxes, depreciation and amortization) reflect short-term profitability. In the context of this report the estimates represent industry averages.

The regulatory environment was relatively stable during 2023. Availability and use of higher ethanol blends, particularly E15 and E85, continued to expand. As pointed out earlier domestic ethanol use kept pace with motor gasoline demand. Ethanol exports continue to grow but increased competition from Brazil and the impact of EVs on motor fuel use in Europe may slow this growth. Slower growth in domestic gasoline demand prompted by demographics and increased use of EVs are likely to slow growth in ethanol demand. These challenges raise questions about how ethanol demand will evolve over time.

At the same time, there are substantial opportunities, such as increasing the availability and use of higher blends of ethanol and the development of new markets such as Sustainable Aviation Fuel (SAF). The former will take federal legislation while the latter will require Iowa ethanol producers to lower their current carbon intensity, most easily and cost-effectively accomplished through carbon capture and sequestration pipelines. A recent article in the industry publication Aviation Week estimated the current (2023) market for SAF at $1.29 billion and reported that the global market for SAF is expected to grow to over $131 billion within the next decade.[i2] This growth will pose a substantial opportunity for Iowa's ethanol industry. Development of new markets also is good news for Iowa corn growers as overproduction has led to increased ending stocks of corn at roughly 2.2 billion bushels and the largest one-year decline in corn prices in a decade.

Biodiesel producers in Iowa face increased competition for feedstocks from rapidly growing renewable diesel production. SAF can also be made from the same feedstocks as biodiesel and renewable diesel, so this is another area to monitor. However, new markets for biodiesel are being developed in a diverse array of sectors including home heating oil, rail transport and ocean-going marine vessels.

[2] Tom Pleasant, "SAF Market Worth $131.12 Billion by 2033". Aviation Week. August 31, 2023. https://aviationweek.com/special-topics/sustainable-aviation-fuel/saf-market-worth-13112-billion-2033

ECONOMIC IMPACT OF RENEWABLE FUELS ON IOWA

Biofuels plants purchase agricultural raw materials, other inputs, and a wide range of goods and services such as industrial chemicals; electricity, natural gas, and water; labor; and services such as maintenance, insurance, and general overhead. The primary feedstock for ethanol remains corn while the biodiesel industry uses a wider variety of fats and oils as feedstocks. The 4.6 billion gallons of ethanol produced in Iowa last year utilized nearly 1.6 billion bushels of corn or 62 percent of Iowa's 2023 2.52-billion-bushel corn crop. The 2 billion pounds of soybean oil used to produce biodiesel in Iowa were the equivalent of the oil from nearly 178 million bushels of soybeans, more than 30 percent of Iowa's soybean crop. Iowa's biodiesel industry used an additional 600 million pounds of other feedstocks including distiller's corn oil (a co-product of corn dry mill ethanol production), Canola oil, animal fats, and used cooking oil (UCO).

Expenditures on these goods and services represent the purchase of output of other industries. A substantial share of these dollars is spent in Iowa, and the economic impact stays in the state. Spending associated with renewable fuels production circulates throughout the entire economy several-fold. Consequently, this spending stimulates aggregate demand, supports jobs not only in biofuels production but also jobs throughout the entire economy, generates additional household income, and provides tax revenue for the state and local governments.

The renewable fuels industry is multifaceted. Ethanol and biodiesel producers are part of a manufacturing sector that adds substantial value to agricultural commodities produced in Iowa. The first and second-generation feedstocks used to produce renewable fuels are produced primarily by Iowa farmers. Combined, these activities make a significant contribution to the

Iowa economy. Based on its size and scope, the renewable fuels industry had the following impacts on Iowa's economy in 2023:[3]

- Accounts for more than $6.5 billion, or about 3 percent, of Iowa GDP
- Generates $3.2 billion of income for Iowa households; and
- Supports almost 52,000 jobs throughout the entire Iowa economy. This is equivalent to more than 3 percent of total state employment.

The annualized contribution of the ethanol and biodiesel industries is summarized in Table 1.

Table 1
Total Economic Impact of the Renewable Fuels Industry for Iowa: 2023

	Purchases **(Mil 2023$)**	**GDP** **(Mil 2023$)**	**Income** **(Mil 2023$)**	**Employment** (Jobs)
Ethanol*	$11,731	$5,683	$2,811	46,213
Biodiesel	$1,782	$851	$408	5,670
Total	$13,513	$6,534	$3,219	51,793

* Includes agriculture, investment in R&D, and exports

Methodology

The spending associated with renewable fuels production and construction of new capacity circulates throughout the entire Iowa economy several-fold. Consequently, this spending stimulates aggregate demand, supports the creation of new jobs, generates additional household income, and provides tax revenue for state and local governments. We estimate the impact of the renewable fuels industry on the Iowa economy by applying expenditures by

[3] This study estimates the impact of producing 4.6 billion gallons of ethanol and 350 million gallons of biodiesel on Iowa's economy.

the relevant supplying industry to the appropriate final demand multipliers for value added output, earnings, and employment.

This study utilizes the IMPLAN (Impact Analysis for Planning) economic model to develop this understanding of the economy, including the sectors that support the ethanol industry, the links between them, and the level of economic activity. IMPLAN is a commonly used economic input-output (I-O) model. I-O models are constructed based on the concept that all industries within an economy are linked together; the output of one industry becomes the input of another industry until all final goods and services are produced. I-O models can be used both to analyze the structure of the economy and to estimate the total economic impact of projects or policies. For this analysis, a model for the Iowa economy was constructed using current IMPLAN software and data to estimate economic impacts of the ethanol and biodiesel industries. The IMPLAN data are based on the most recent available national benchmark input-output data and regional data published by the U.S. Bureau of Economic Analysis. Detail regarding the IMPLAN model and how it was used is presented in Appendix A.

The treatment of net earnings for the ethanol industry was accomplished by estimating revenue from dry and wet mill ethanol and co-products. Estimates were based on their share of industry output and calculating the impact on net industry earnings using multipliers for the corn dry mill ethanol (non-beverage ethanol) and wet corn mill industries. Biodiesel earnings were treated the same as in previous years.

We continue to incorporate the explicit impact of ethanol and DDGS exports into the analysis using updated USDA Agricultural Trade multipliers for output and employment in the biofuels industry to estimate the impact of exports. These results were added to the IMPLAN results. Since Iowa is the nation's largest ethanol producer, the Iowa industry participates in the export market. Reflecting this, we applied Iowa's share of total production to the total national export impact.

Contribution of the Renewable Fuels Industry

The contribution of the renewable fuels industry to the economy of Iowa is detailed in Table 2.

Table 2
Contribution of the Renewable Fuels Industry to Iowa: 2023

	GDP (Mil 2023$)	Jobs (Thou)	Income (Mil 2023$)
Ethanol Manufacturing*			
Direct	$1,073.6	2,238	$396.6
Indirect	$652.2	6,528	$393.8
Induced	$302.2	3,515	$161.1
Subtotal	**$2,027.9**	**12,981**	**$951.5**
Biodiesel Manufacturing			
Direct	$220.3	729	$70.4
Indirect	$486.6	3,314	$259.5
Induced	$144.3	1,627	$78.1
Subtotal	**$851.2**	**5,670**	**$408.1**
Agriculture			
Direct	$1,641.2	6,682	$489.9
Indirect	$776.7	11,709	$647.8
Induced	$437.7	4,736	$234.4
Subtotal	**$2,855.5**	**23,127**	**$1,372.2**
New Construction			
Direct	$95.8	1,450	$93.9
Indirect	$25.9	232	$15.1
Induced	$41.6	498	$22.2
Subtotal	**$163.4**	**2,179**	**$131.2**
Exports (Total)	**$635.9**	**7,836**	**$356.1**
Total			
Direct	$3,030.9	11,599	$1,050.8
Indirect	$2,577.2	29,619	$1,672.4
Induced	$925.8	10,575	$495.9
2023 Grand Total	**$6,533.9**	**51,793**	**$3,219.0**

* Includes R&D

The renewable fuels industry provides a significant contribution to the Iowa economy, with ethanol producers spending more than $11.7 billion on raw materials, other inputs, goods, and services to produce 4.6 billion gallons of ethanol. Biodiesel producers spent $1.8 billion to produce 350 million gallons of biodiesel. The largest share of this spending is for corn used as the raw material to make ethanol and co-products, and soybean oil and other fats and oils to produce biodiesel.

Ethanol

The ethanol industry provides an attractive domestic market for Iowa farmers as well as the opportunity for farmers to enjoy some of the value added to their commodity by further processing.

The remainder of the spending is for a wide range of inputs such as industrial chemicals, electricity, natural gas, water, labor, transportation and services such as maintenance, insurance, and general overhead. Spending for these goods and services represents the purchase of output of other industries, mostly in Iowa. For example, the Iowa ethanol industry used 1.6 billion bushels of corn, or 62 percent of Iowa's corn crop.[4] This amounts to more than $9.5 billion of revenue to Iowa corn farmers.

Every dollar spent by an ethanol (or biodiesel) producer on feedstocks, electricity, natural, gas, labor, and other inputs produced in Iowa represents demand for goods and services produced by Iowa farmers and firms. This demand provides the maximum economic impact since most of the value stays in Iowa. To the extent that goods used by Iowa biofuels producers are

[4] The 4.6 billion gallons of ethanol production required 1.6 billion bushels of corn. This amounts to 62 percent of the 2023 Iowa corn crop. Without the demand for corn provided by the ethanol industry Iowa farmers would likely plant fewer acres to corn, purchase fewer inputs, and produce a smaller crop, thereby reducing the economic contribution provided by the corn industry.

procured from out-of-state the Iowa economy still benefits because these goods generally reflect activity by the wholesale sector.

Most ethanol produced in Iowa (85 percent) is by dry mills that also produce valuable co-products in the form of DDGS and DCO.[5] Iowa's corn wet mill plants produce corn gluten feed (CGF), corn gluten meal (CGM) and edible corn oil as co-products. The Iowa ethanol industry produced an estimated 11.1 million short tons of DDGS, nearly 1.1 billion pounds of DCO, 1.4 million tons of CGF and 293,000 tons of CGM in 2023 with an aggregate market value of nearly $3.5 billion. These co-products are used by Iowa livestock producers and the Iowa biodiesel industry. It is notable that these co-products are produced with little additional expenditure.

The value of the ethanol industry output (ethanol and co-products) amounts to nearly $13.4 billion at 2023 prices. Based on the IMPLAN model, the ethanol and supporting agriculture industries account for $4.9 billion of Iowa GDP.

Jobs are created from the economic activity supported by ethanol production. While ethanol production is not a labor-intensive industry, accounting for nearly 2,300 fulltime-equivalent direct jobs in Iowa[6], the economic activity resulting from the full activities of the ethanol industry supports a much larger number of jobs in the overall economy. The direct jobs supported by the ethanol industry are concentrated primarily in manufacturing and agriculture. When the indirect and induced effects of ethanol manufacturing are considered, the industry accounts for more than 12,000 fulltime-equivalent jobs throughout the entire economy.

[5] DDGS and DCO production is reported monthly in the USDA Grain Crushings and Co-Products Production report. http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1899.

[6] The Census Bureau does not report employment in ethanol production. The number of direct jobs associated with ethanol production is based on an estimated industry average of 50 jobs per plant.

Since renewable fuels production uses feedstocks produced by Iowa farmers, the ethanol and biodiesel industries have the largest impact on agriculture, supporting nearly 6,700 direct farm and farm-related jobs. Most of the agriculture jobs supported by the ethanol industry are farm workers and laborers associated with grain production. However, a wide range of jobs in support activities related to crop production, ranging from farm managers and bookkeepers to farm equipment operators, are supported by ethanol production.

As the impact of the direct spending by the ethanol and biodiesel industries expands throughout the economy, the employment impact expands significantly and is spread over many sectors. The indirect and induced jobs supported by the agriculture output used by renewable fuels amount to an additional 16,400 jobs throughout the entire Iowa economy for a total impact from agriculture of nearly 23,217 jobs.

Increased economic activity and new jobs result in higher levels of income for Iowa households. The ethanol and supporting agriculture industry generated more than $2.8 billion of income for Iowans in 2023.

Biodiesel

The Iowa biodiesel industry also makes sizable contributions to the Iowa economy. According to the Iowa Renewable Fuels Association (IRFA), Iowa's 10 operating biodiesel plants produced 350 million gallons of biodiesel in 2023.[7]

The Iowa biodiesel industry spent $1.8 billion on raw materials, other inputs, goods, and services in 2023. The largest share of this spending is for fats and oils used as the raw material to make biodiesel. The Iowa biodiesel industry used more than 2.6 billion pounds of fats and oils to produce 350 million gallons of B100.The Iowa biodiesel industry used 2.0 billion pounds of soybean oil in 2023 to produce biodiesel, accounting for 77 percent of total

[7] http://www.iowarfa.org/biodiesel_refineries.php

feedstock use. Most of the remaining feedstock use was equally divided between Distillers corn oil, Canola oil and animal fats. Most of the feedstocks for Iowa biodiesel production are procured locally. The remainder of the spending by the biodiesel industry is for a wide range of inputs such as industrial chemicals, electricity, natural gas, water, labor, and services such as maintenance, insurance, and general overhead. As with ethanol, spending for these goods and services represents the purchase of output of other industries.

The spending associated with biodiesel production also circulates throughout the entire Iowa economy stimulating aggregate demand, supporting jobs, generating additional household income, and creating tax revenue. The following summarizes the economic contribution of the Iowa biodiesel industry at the end of 2023.

- Iowa biodiesel producers spent nearly $1.8 billion to produce biodiesel in 2023 while the gross value of the biodiesel and glycerin fell 11 percent to $1.6 billion. Nonetheless, when the impact of manufacturing is considered, the biodiesel industry accounts for more than $850 million of Iowa GDP.

- Jobs are created because of increased economic activity caused by biodiesel production. The increase in economic activity generated by biodiesel production supports nearly 5,700 fulltime-equivalent jobs in all sectors of the Iowa economy.

- Increased economic activity and jobs result in higher levels of income for Iowa households. The biodiesel industry accounts for about $410 million of household income for Iowans.

Conclusion

The renewable fuels industry continued to make a significant contribution to the Iowa economy in terms of GDP, job creation, and income in 2023. The importance of the renewable fuels industry to agriculture and rural economies such as Iowa is particularly notable. Growth and expansion of the biofuels industry through the application of new technologies and feedstocks will enhance the industry's ability to support American energy independence and solidify its position as the original creator of green jobs while enabling America to make further strides toward reducing greenhouse gas emissions and positively dealing with climate change.

Further, policy and regulatory actions taken by Iowa, and other Midwestern states, to boost the use of biofuels locally, particularly statewide use of E15 and higher biodiesel blends, provide substantial support for this important industry. Finally, enabling carbon capture and sequestration pipelines will allow the development of new markets such as Sustainable Aviation Fuel (SAF), a potentially massive market that can ensure future growth opportunities for Iowa biofuels and farmers.

APPENDIX A

IMPLAN Methodology

We estimate the impact of the ethanol industry on the economy of Iowa by applying expenditures by the relevant supplying industry to the appropriate final demand multipliers for value added output (GDP), earnings, and employment.

To understand how the economy is affected by an industry such as renewable fuels production, it is necessary to understand how different sectors or industries in the economy are linked. For example, in the renewable fuels production sector, the ethanol industry buys corn from the agriculture sector, which in turn, buys inputs from other suppliers such as fertilizer and pesticide producers that also purchase products from a range of other industries. These are referred to as backward linkages. Use by other sectors of natural gas as an input, such as manufacturing operations, is a forward linkage. Natural gas production and transmission industries are linked through both forward and backward linkages to other economic sectors in each state's economy.

The household sector is linked to all sectors as it provides the labor and management resources. In turn, changes that affect incomes of the household sector typically have significant impacts compared to a change in the sales of other sectors. This is because households typically spend most of their income on both retail and service goods and this is a critical component of the economy

This study uses economic data from IMPLAN (Impact Analysis for Planning) to develop a model of the Iowa economy, including sectors that support the ethanol and biodiesel industries, the links between them, and the level of national economic activity. IMPLAN is a commonly used economic input-output (I-O) model. I-O models are constructed based on the concept that all industries in an economy are linked together; and the output (i.e., sales) of one

industry becomes the input of another industry until all final goods and services are produced. I-O models can be used both to analyze the structure of the economy and to estimate the total economic impact of projects or policies. For this analysis, a model for the Iowa economy was constructed using current IMPLAN data. These data are based on the most recent available national input-output data and regional data published by the U.S. Bureau of Economic Analysis.

IMPLAN models provide three economic measures that describe the economy: value added, income, and employment.

- Value added is the total value of the goods and services produced by businesses in the country and is generally referred to as GDP.

- Labor income is the sum of employee compensation (including all payroll and benefits) and proprietor income (income for self-employed work). In the case of this analysis, demand for corn and other feedstocks to produce ethanol and biodiesel supports farm income through higher crop receipts than would be the case without ethanol and biodiesel production.

- Employment represents the annual average number of employees, whether full or part-time, of businesses producing output.

Three types of effects measured with a multiplier: direct, indirect, and induced effects. Direct effects are the known or predicted changes in the economy. Indirect effects are the business-to-business transactions required to produce direct effects (i.e., increased output from businesses providing intermediate inputs). Finally, induced effects are derived from spending on goods and services by people working to satisfy direct and indirect effects (i.e., increased household spending resulting from higher income).

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Appendix B Prices

	Ethanol, Iowa ($/gal)	Corn, No 2. Yellow Iowa ($/bu)	Distillers Grains 10% Iowa ($/ton)	Distillers Corn Oil, Iowa (cents/lb)	Corn Gluten Feed 21% Midwest, ($/ton)	Corn Gluten Meal 60%, Midwest ($/ton)
Jan-22	$2.03	$6.04	$193.65	$59.55	$191.25	$610.00
Feb-22	$2.35	$6.38	$227.30	$71.24	$195.75	$614.07
Mar-22	$2.50	$7.14	$262.72	$81.75	$217.79	$659.84
Apr-22	$2.71	$7.72	$286.07	$80.56	$226.35	$681.64
May-22	$2.70	$7.76	$276.75	$82.87	$224.37	$642.70
Jun-22	$2.51	$7.82	$230.31	$76.43	$216.25	$627.29
Jul-22	$2.46	$7.24	$204.83	$68.40	$189.38	$642.03
Aug-22	$2.39	$7.34	$225.14	$70.91	$198.54	$658.08
Sep-22	$2.33	$7.37	$251.84	$73.18	$226.15	$652.08
Oct-22	$2.46	$6.89	$245.08	$73.18	$208.88	$653.13
Nov-22	$2.12	$6.81	$220.80	$77.57	$205.94	$652.98
Dec-22	$2.13	$6.76	$244.79	$68.75	$206.25	$674.53
Jan-23	$2.11	$6.87	$274.33	$68.02	$211.05	$665.90
Feb-23	$2.07	$6.88	$268.04	$63.13	$209.17	$663.75
Mar-23	$2.12	$6.57	$249.23	$55.73	$203.65	$631.21
Apr-23	$2.35	$6.75	$245.10	$53.96	$186.33	$589.04
May-23	$2.33	$6.40	$229.10	$55.21	$167.13	$548.82
Jun-23	$2.40	$6.55	$199.55	$56.60	$161.98	$508.93
Jul-23	$2.38	$5.93	$191.93	$65.07	$158.00	$529.86
Aug-23	$2.12	$5.59	$190.86	$68.21	$154.17	$546.42
Sep-23	$2.25	$4.89	$189.81	$67.71	$157.83	$556.64
Oct-23	$2.14	$4.78	$183.35	$62.35	$159.35	$558.22
Nov-23	$1.89	$4.74	$194.30	$55.08	$165.28	$576.67
Dec-23	$1.64	$4.79		$52.10	$171.53	$531.22
2022	$2.39	$7.11	$239.11	$73.70	$208.91	$647.36
2023	$2.15	$5.89	$219.60	$60.26	$175.46	$575.56
Pct Chg	-10.1%	-17.1%	-8.2%	-18.2%	-16.0%	-11.1%

	B100, FOB Plant Iowa ($/gal)	Soy Oil, Iowa (cents/lb)	Canola Oil (cents/lb)	Edible Tallow, Chicago (cents/lb)	Yellow Grease, MN (cents/lb)	Choice White Grease, MN (cents/lb)
Jan-22	$5.23	67.83	88.56	76.50		
Feb-22	$5.68	75.88	85.88	80.00		
Mar-22	$6.50	80.19	92.00	81.50	59.04	67.92
Apr-22	$6.99	88.62	103.15	83.13	58.03	64.30
May-22	$7.53	91.41	108.69	84.25	60.59	63.13
Jun-22	$7.43	86.34	102.25	86.50	61.77	72.00
Jul-22	$6.55	72.44	87.90	81.50	59.27	65.05
Aug-22	$6.58	76.31	91.31	NA	59.50	64.63
Sep-22	$6.73	74.67	76.85	92.00	62.30	69.78
Oct-22	$6.71	75.01	80.13	88.50	61.50	67.27
Nov-22	$6.97	81.02	84.38	88.50	58.03	63.40
Dec-22	$6.06	69.67	74.05	84.00	60.81	65.31
Jan-23	$5.68	66.57	71.19	76.13	59.56	63.25
Feb-23	$5.44	64.18	68.25	63.95	51.10	56.27
Mar-23	$4.70	60.27	64.60	66.25	46.40	50.35
Apr-23	$4.18	56.44	62.63	NA	44.44	47.44
May-23	$3.93	53.40	62.13	NA	46.06	49.81
Jun-23	$4.48	61.64	71.85	74.59	46.90	52.40
Jul-23	$5.51	72.56	83.00	74.63	49.31	57.56
Aug-23	$5.23	72.01	81.69	76.70	53.75	62.94
Sep-23	$4.85	66.70	73.75	76.25	54.95	64.50
Oct-23	$3.79	58.10	65.19	65.17	47.88	53.63
Nov-23	$3.62	54.22	61.63	57.03	39.92	46.75
Dec-23	$3.35		59.45	50.67	35.25	38.10
2022	$6.58	$78.28	$89.59	$84.22	$60.08	$66.28
2023	$4.56	$62.37	$68.78	$68.14	$47.96	$53.58
Pct Chg	-30.6%	-20.3%	-23.2%	-19.1%	-20.2%	-19.2%

Source: USDA AMS