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Cornhusker Economics

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Market Report	Year Ago	4 Wks Ago	10-2-20
Livestock and Products,			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	*	*	104.32
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	162.44	170.10	161.79
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	155.53	149.10	151.92
Choice Boxed Beef, 600-750 lb. Carcass.	212.58	229.91	218.10
Western Corn Belt Base Hog Price Carcass, Negotiated	*	*	*
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	75.03	72.07	90.54
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	137.73	125.51	142.11
National Carcass Lamb Cutout FOB.	396.64	417.79	432.25
Crops,			
Daily Spot Prices			
Wheat, No. 1, H.W.			
Southwest NE , bu.	3.50	4.06	4.73
Corn, No. 2, Yellow			
Central NE , bu.	3.78	2.86	3.50
Soybeans, No. 1, Yellow			
Central NE , bu.	8.17	8.21	9.56
Grain Sorghum, No.2, Yellow			
Southeast NE , cwt.	5.93	6.00	4.39
Oats, No. 2, Heavy			
Minneapolis, Mn , bu.	3.09	2.96	2.96
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185			
Northeast Nebraska, ton.	*	*	155.00
Alfalfa, Large Rounds, Good			
Platte Valley, ton.	107.50	*	*
Grass Hay, Large Rounds, Good			
Nebraska, ton.	102.50	*	*
Dried Distillers Grains, 10% Moisture			
Nebraska Average.	146.00	142.50	156.00
Wet Distillers Grains, 65-70% Moisture			
Nebraska Average.	48.50	37.99	49.20
* No Market			

Pre COVID-19 Demand for Distillers Grains

Prior to the shutdowns caused by the COVID-19 pandemic, distillers grains and other co-products of ethanol production played a crucial role in maintaining the revenue stream of dry mill ethanol plants (Irwin 2020). With low crude oil prices over the last half of the decade and corn prices holding steady over the same period of time, the margin for error in the ethanol industry was thin. More than a third of Nebraska's ethanol plants either temporarily or permanently closed in 2019 (MacroTrends 2020); (York News Times 2019). To prevent similar outcomes, ethanol plants focused on diversifying their operations to produce higher-value coproducts to hedge against adverse price trends in the ethanol industry (Voegele 2020).

The products constituting the largest share of the coproduct revenue stream for most ethanol plants were the various forms of distillers grains, most commonly Dried Distillers Grains with Solubles (DDGS), Modified Distillers Wet Grains (MDWG), and Distillers Wet Grains (DWG). While both MDWG and DWG offer slightly higher feeding values than DDGS, their moisture contents and weights make them difficult to ship beyond a limited radius, making DDGS the most common form of distillers grains nationally (Nuttelman, et al. 2011). Regardless of the form of distillers grains, each type offers – in most cases – superior nutritional properties to corn through lower starch content, higher total digestible nutrients, and higher crude protein content (Jenkins 2016). The favorable properties and relative affordability of distillers grains – paired with a concerted effort by ethanol plants to market distillers grains as co-products rather than by-products – helped form a market for distillers grains that was largely impervious to, and separate from, fluctuations in the ethanol sector (Morgan 2020).

Despite a demand structure for distillers grains that is almost entirely separate from ethanol's, the production of distillers grains directly depends on the amount of ethanol produced. While the closure of meatpacking plants most directly impacted the demand for distillers grains, their effect on distillers grains production was far outweighed by the effect of unprecedentedly low demand for gasoline; meatpacking plants closed sporadically and for only a few weeks at a time, while global gasoline demand remained low for months (Domonoske 2020). As is evident in Figure 1, the impact of ethanol production slowdowns on co-product production was stark: from March to May of 2020, the production of types of distillers grains experienced unprecedented reductions. Since data regarding monthly distillers grains production by state are not publicly available, Figure 1 estimates distillers grains production in some of the nation's top ethanol-producing states by multiplying national distillers grains production by each state's percentage of total ethanol operating production in 2018 (Nebraska Energy Office 2018). During the period of reduced distillers grains production as shown in Figure 1, 73 ethanol plants in the United States idled and 71 more significantly reduced operations to deal with the impact of COVID-19 on ethanol demand (Snodgrass 2020). Since Nebraska is one of the nation's leading producers of ethanol and distillers grains – second only to Iowa – the

slowdowns had an outsized impact on the state (Nebraska Ethanol Board 2020).

COVID-19 Impacts

When the first recorded case of the COVID-19 pandemic reached the United States in January of 2020, it set off a series of responses by governments at the local, state, and federal levels to mitigate the spread of the disease. Many of the actions taken by government officials – which included ordering temporary closures of businesses deemed non-essential, limiting the size of gatherings, and instituting social distancing measures – aimed to reduce contact between people and slow the spread of the disease (Bunis and Rough 2020). As a result, travel decreased, which caused a rapid decline in consumption of both gasoline and fuel ethanol (U.S. Energy Information Association 2020); (Brown 2020). This had a noticeable impact on the ethanol sector, as the decrease in travel paired with the temporary closure of meatpacking plants (distillers grains are an important component of many feedlots' rations) resulted in limited demand for both ethanol and its distillers grains co-products (Rempe 2020) (Bedord 2020). Previous Cornhusker Economics articles have provided great detail on these impacts (see [NE Ethanol Industry](#) and [Distillers Grains](#)).

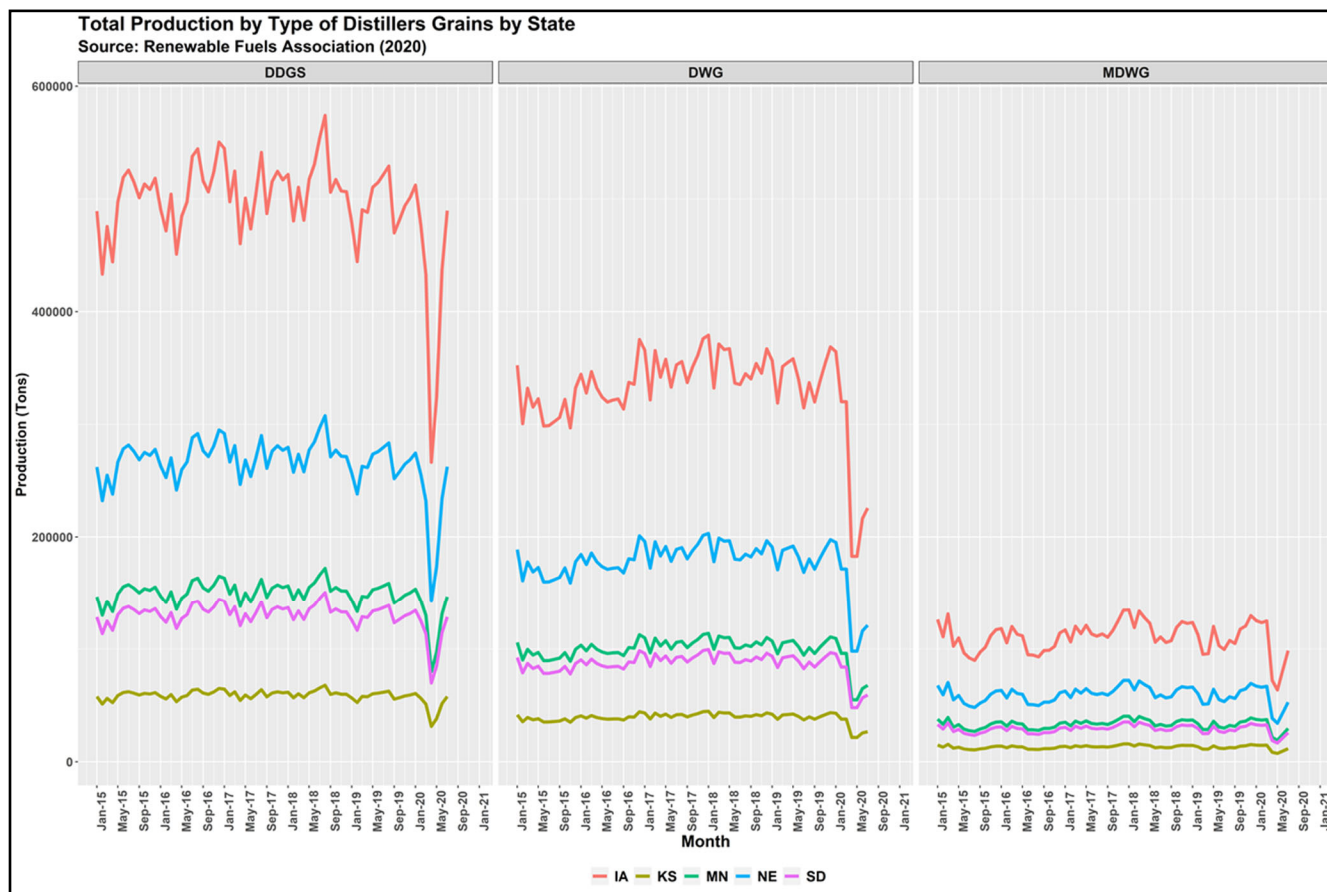


Figure 1.

Post COVID-19 Recovery

Despite the magnitude of the impact to the ethanol industry, distillers grain production has largely returned to pre-pandemic levels in recent months, indicating a resilient demand for distillers grains that is increasingly unrelated to the market for ethanol. The relatively quick recovery in all distillers grains production can be attributed to a variety of factors (see Figure 1). The almost complete recovery in DDGS production over DWG and MDWG production stems from the non-locality of DDGS markets. DDGS can be shipped practically anywhere in the world, while demand for DWG and MDWG is more dependent on the operating status of locally operated feedlots and packing plants (U.S. Grains Council 2020). Additionally, as local meatpacking plants adjusted to social distancing requirements and other safety measures, producers were able to shift back from temporary, higher-cost substitutes to feed rations that more prominently included distillers grains. Finally, despite the rebound in gasoline prices and ethanol production, both remain lower than in previous years (Gilbertie 2020). Comparatively low oil prices paired with a less drastic drop in corn prices (corn demand was likely buoyed by its use as a substitute feed when distillers grains were scarce) reinforces the importance of distillers grains to ethanol profitability (MacroTrends 2020). Ethanol plants were incentivized to prioritize distillers grains production to capitalize on both local and global recoveries in demand.

Summary and Implications

The ethanol and distillers grains industries – like many other sectors – faced remarkable challenges in 2020. While still intrinsically related by production methods, it appears plants have developed separate demand structures for ethanol and distillers grains that allow ethanol plants to weather difficult market circumstances. In the case of COVID-19, the relatively brief impact on the meat production complex allowed the market for distillers grains to quickly recover and provide some level of relief to ethanol plants. Consequently, although the long-term impacts of COVID-19 on the ethanol industry remain to be seen, the strong market for distillers grains is positioned to lead the sector's recovery.

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