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Strong increases in cash rental rates in Iowa

By Alejandro Plastina, extension economist, 515-294-6160 | plastina@iastate.edu

The most recent annual survey of cash rental rates for Iowa farmland shows that rates increased, on average, by 4.5% in 2021 to \$232 per acre. This is the first substantial increase in cash rents since 2013, when rents peaked and four years of declining rents and three years of relatively stable rents followed (Figure 1). In comparison, nominal corn and soybean prices received by farmers in Iowa declined by 31% and 14%, respectively, since mid-2013.

Iowans supplied 1,363 usable responses about typical cash rental rates in their counties for land producing corn and soybeans, hay, oats and pasture. Of these, 41% came from farmers, 33% from landowners, 11% from professional farm managers and realtors, 9% from agricultural lenders, and 6% from other professions and respondents who chose not to report their status. Respondents indicated being familiar with a total of 1.5 million cash rented acres across the state.

AgDM File C2-10, Cash Rental Rates for Iowa 2021 Survey,

www.extension.iastate.edu/agdm/ wholefarm/pdf/c2-10.pdf, provides detailed results by county and crop. There was considerable variability across counties in year-to-year changes, as is typical of survey data, but 76 out of the 99 Iowa counties experienced increases in average rents for corn and soybeans. The report also shows typical rents for alfalfa, grass hay, oats, pasture, corn stalk grazing, and hunting rights in each district.

Survey shows rent increases in all districts

The survey was carried out by Iowa State University Extension and Outreach. Statewide, reported rental rates for land planted to corn and soybeans were up from \$222 per acre last year to \$232 in 2021, or 4.5%. This percent increase is slightly less than twothirds of the percent increase in Iowa farmland values between March 2020 and March 2021 reported in surveys conducted

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Handbook updates

For subscribers of the handbook, the following updates are included.

2020 Iowa Farm Cost and Returns - C1-10 (9 pages)

Financial Performance Measures for Iowa Farms – C3-55 (10 pages)

Energy Measurements and Conversions – C6-86 (2 pages)

Please add these files to your handbook and remove the outof-date material.

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Ag Decision Maker is compiled by extension ag economists Ann Johanns, aholste@iastate.edu extension program specialist Strong increases in cash rental rates in lowa, continued from page 1

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by the Iowa REALTORS Land Institute and summarized in AgDM File C2-75, Farmland Value Survey (REALTORS Land Institute), www.extension.iastate.edu/agdm/wholefarm/pdf/c2-75.pdf.

However, the 14.1% accumulated decline in rental rates since 2013 is in line with the cumulative 13.3% decline in land values over the same period reported in the Iowa Land Value Survey published by the Iowa State University Center for Agriculture and Rural Development, www.card.iastate.edu/land-value/ or AgDM File C2-70, Farmland Value Survey, www.extension.iastate.edu/agdm/wholefarm/pdf/c2-70.pdf.

Different regions experienced different increases in cash rents: from 1.3% in Crop Reporting District (CRD) 1 to 7.8% in CRD 9 (Figure 2). Except for Northwest and Northeast Iowa (CRDs 1 and 3), where average rents increases by less than \$5 per acre, all CRDs experienced at least a \$10 increase in average rents.

Percent increases in rent similar across land qualities

All land qualities have seen their average cash rents increase by similar percentages. High quality land experienced a 3.9% increase, from \$257 per acre in 2020 to \$267 in 2021.

Medium quality land experienced a 4.5% increase, from \$223 per acre in 2020 to \$233 in 2021.

Low quality land experienced a 4.8% increase, from \$188 per acre in 2020 to \$197 in 2021.

Setting rents for next year

Survey information can serve as a reference point for negotiating an appropriate rental rate for next year. However, rents for individual farms should be based on productivity, ease of farming, fertility, drainage, local price patterns, longevity of the lease and possible services performed by the tenant.

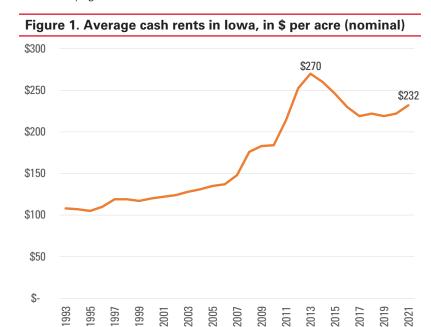
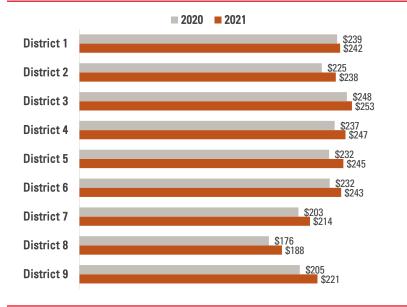


Figure 2. Average cash rents by Crop Reporting District, in \$ per acre



Three major factors with the potential to influence future cash rents are crop prices, government payments, and land values. Corn and soybean prices received in Iowa peaked in August 2012 at \$7.90 and \$16.80 per bushel, respectively. In March 2021, corn and soybean prices received by farmers in Iowa averaged \$4.89 and \$13.30 per bushel and, despite the run up in prices observed since July 2020, they accumulate a 38% and 21% decline since August 2012 (Figure 3). The US Department of Agriculture is currently projecting average corn and soybean

Strong increases in cash rental rates in lowa, continued from page 2

prices for the 2021-22 marketing year at \$5.70 and \$13.85 per bushel, respectively. These higher prices would improve net farm income with respect to last year, but would not be able to offset the reduction in income from lower government payments. In February 2021, the Economic Research Service forecast an 8.1% reduction in net farm income between 2020 and 2021.

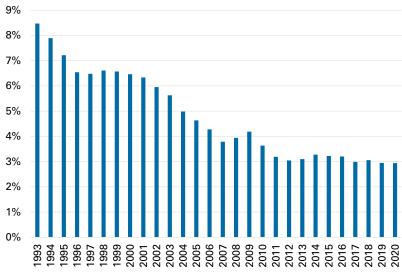
A major factor considered by landowners when negotiating cash rents is the return on their farmland investment. Figure 4 shows the evolution of the ratio of average cash rents to average land values in Iowa. It suggests that the average return on investment for landowners who cash rent their land to operators has followed a declining trend since the early 1990s, stabilizing at around 3% after 2010. Note that this ratio does not measure net returns because ownership costs, such as real estate taxes, are not taken into account in its calculation. However, it is indicative that landowners (whose goal is presumably to obtain a reasonable rate of return on their real estate assets) will likely be reticent to accept lower cash rents in the future unless land values continue to decline. However, with current interest rates at historically low levels and early indications of potentially increasing inflation risks, future interest rates are likely to be higher than current ones. As a result, the opportunity cost for landowners would increase and there might be pressure to ask for higher rents. Additionally, Iowa farmland values increased by 7.8% between September 2020 and March 2021 (REALTORS Land Institute), putting more upward pressure on cash rents for 2022.

Other resources available for estimating a fair cash rent include the AgDM Information Files Computing a Cropland Cash Rental Rate (C2-20), Computing a Pasture Rental Rate (C2-23) and Flexible Farm Lease Agreements (C2-21). All of these fact sheets are on the <u>Ag Decision Maker Leasing page</u>: www. extension.iastate.edu/agdm/wdleasing.html, and include decision tools (electronic spreadsheets) to help analyze individual leasing situations.

Figure 3. Prices received in Iowa for corn and soybeans, in dollars per bushel



Figure 4. Ratio of average cash rent to average land value in lowa, 1993-2020



Source: A. Plastina's calculations based on Iowa Farmland Value Surveys and Cash Rental Rates for Iowa Surveys

For questions regarding the cash rent survey, contact the authors. For leasing questions in general, contact the <u>farm management field specialist</u> in your area, www.extension.iastate.edu/ag/farm-management. An online decision tool to visualize the cash rents by land quality in each county by year, and compare trends in cash rents for a county versus its CRD and the state average is <u>available</u>, www.card.iastate.edu/tools/ag-risk/cash-rental-rates/.





Cover crop cost-share programs in Iowa: do they work?

By Wendiam Sawadgo, Assistant Professor, Auburn University, and Alejandro Plastina, Associate Professor, Iowa State University

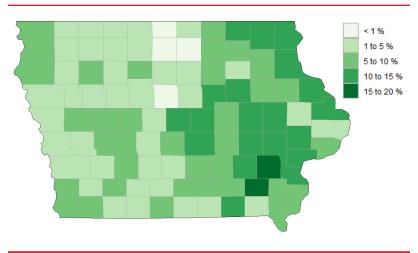
Cover crops are often used by farmers for their soil health benefits. The benefits of cover crops go beyond the farm, as they have been shown to reduce nutrient pollution from fields to waterways through leaching or runoff. As such, cover crops have been extensively promoted as a way to improve Iowa's water quality. However, as of 2017, cover crops were used on only 4% of Iowa cropland.

This low adoption rate is likely in part due to the high costs of implementing cover crops, which have been found to amount to \$40 per acre, mostly from the added cost to plant cover crops. To help farmers partially cover this extra cost, cost-share programs from the Iowa

Department of Agriculture and Land Stewardship, USDA National Resources Conservation Service, and other sources pay farmers a fixed per-acre amount to plant cover crops. The question remains: are cost-share programs effective at increasing cover crop use or would the participants of cost-share programs have planted cover crops regardless? If farmers are not planting additional acres of cover crops due to the cost-share payment, then these programs simply act as a cash transfer and do not lead to increased environmental benefits.

To test the effectiveness of cost-share programs, we use data from an Iowa State University producer survey and the 2012 Census of Agriculture. The survey was administered by the Upper Midwest regional office of the National Agricultural Statistics Service (NASS) in 2017 and was mailed to 1,250 operators of whom 674 responded. The survey asked detailed questions on agricultural practices relating to the planting and termination of cover crops, farmers' experience with cover crops, and cost-share payments. The sample used in our analysis had about the same number of cover crop users and non-users in 2015 (208 vs. 199, respectively). About 40% of cover crop users received cost-share payments that averaged \$26 per acre.

Figure 1. Percentage of cropland in cover crops by county in lowa, 2017



*Data source: 2017 Census of Agriculture, USDA-NASS

After accounting for factors such as differences in past cover crop area, farm size, rented farmland, and presence of livestock or poultry, we find that costshare recipients planted an additional 15% of their farmland to cover crops than they would have, had they not received cost-share. We calculate that 54% of cost-share funded acres were additional, meaning that over half of farmland in cost-share programs funded cover crop acreage that would not have been planted without payment. This suggests that although a large chunk of spending went to acreage that would have had cover crops regardless of costshare, there was a significant amount of farmland that was planted to cover crops due to the cost-share programs. Using state data for cover crop cost-share expenditures and cover crop acreage, we estimate that cost-share programs led to 172,000 additional cover crop acres in 2015.

Lastly, we considered the costs of achieving environmental gains by estimating the cost of reducing each pound of nitrogen loss through cover cropping. We use results from a study that looks at the effectiveness of cover crops at reducing nitrogen loss in central Iowa and estimate that cover crop use helped avoid 3,078 to 8,405 tons of nitrogen loss in Iowa in 2015. We combine these values with the

Cover crop cost-share programs in lowa: do they work?, continued from page 4

public cost-share expenditures in 2015 and our survey estimates of what farmers spent on cover crops. We find that the cost of avoiding one pound of nitrogen amounted to \$1.59 to \$4.33, with costshare funding paying for 32% of this cost and farmers covering the remaining 68% (figure 2a). The large farmer portion comes because almost half of the state's cover crop acreage was self-funded, and even cost-share participants saw net annual losses of \$23 per acre from using cover crops after accounting for the cost-share payments. In all, farmers were estimated to contribute \$18.28 million statewide to funding cover crops and the public \$8.4 million through cost-share funding.

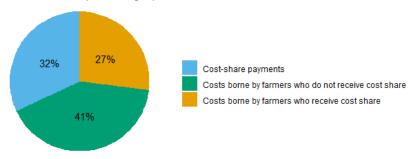
On farmland funded through cost-share, the public cost of avoiding nitrogen loss beyond what would have occurred in the absence of cost-share programs is estimated to be \$1.72 to \$4.70 per pound of Nitrogen. Overall, 29% the state's Nitrogen loss that was avoided due to cover crops would not have occurred in absence of cost-share programs (figure 2b).

How does this compare to other states?

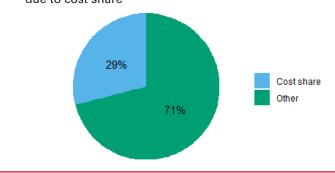
Iowa has the second largest state cost-share program for cover crops in terms of acreage enrolled, only behind Maryland. When comparing Iowa to Maryland, prior studies find that Maryland has had a larger proportion of its cost-share acreage that would not use cover crops in absence of cost-share funds. However, the public cost of abating nitrogen through cover crop cost-share programs in Iowa was estimated at \$1.72 to \$4.70 per pound of nitrogen, which was less than the reported costs in Maryland, which range from \$5.80 to \$8.87 per pound (Fleming 2017; Fleming et al. 2018). The cost was less in Iowa than in Maryland, most likely because the average payment rate in Maryland was \$45 per acre, compared to \$26 per acre in Iowa. The trade-off between program costs and the incentives to entice farmers to enroll acres in the program lies in the heart of cost-effective policy design.

Figure 2. How does cost-share impact lowa cover crop payments and impacts?

(a) Cover crop funding by source in Iowa



(b) Nitrogen loss avoided from additional area in cover crops due to cost share



Voluntary cost-share programs are likely to remain the preferred conservation policy vehicle in the US moving forward. We find mixed results in terms of the effectiveness of cover crop cost-share programs in Iowa. Only about half of the cover crop acres enrolled in cost-share programs funded farmland that would not have had cover crops without the payment; however, the cost of reducing nutrient pollution is lower in Iowa than in other states due to its lower payment rate. In Iowa, farmers fund about 70% of the cost of cover crops through annual net-losses, while the public finances the remaining 30% through cost-share programs. Questions remain as to the best way to reduce nutrient pollution to waterways and increase the use of conservations practices like cover crops that remains sparse.

More information

Sawadgo, W., & Plastina, A. (2021). Do costshare programs increase cover crop use? Empirical evidence from Iowa. Renewable Agriculture and Food Systems, 1-9. doi:10.1017/S1742170521000132



Exploring the greenhouse effect

By Don Hofstrand, retired extension value-added agriculture specialist Reviewed by Eugene Takle, retired professor emeritus Iowa State University

This article is the fourth in a series focused on the causes and consequences of a warming planet

The greenhouse effect is critical for life on Earth. A rocky planet like ours, this far from the sun, should be frozen solid and lifeless with an average temperature of zero degrees Fahrenheit. In other words, it should be a big snowball floating in space. But due to the greenhouse effect, Earth's average temperature is 57 degrees, allowing the planet to support life.

As you may suspect, the greenhouse effect gets its name from greenhouses.

Greenhouses are made of glass. The glass lets sunlight into the greenhouse but blocks the resulting heat from escaping.

So, even in cold weather, greenhouses stay warm.

So how does the greenhouse effect warm the Earth? Sunlight passes through the atmosphere and strikes the Earth's surface. Some of the light is absorbed by the Earth as heat and the rest is reflected back into space. The Earth's absorbed heat is subsequently radiated back into the atmosphere. If there is nothing to stop it, the heat escapes into space.

But if the atmosphere contains greenhouse (heat-trapping) gases like carbon dioxide, a portion of the Earth's radiated heat is absorbed by these gases. The absorbed heat is then re-radiated back down to the Earth, warming the Earth's surface again.

Every time you put on your jacket (or take it off), you are creating your own greenhouse effect. The additional clothing traps body heat next to your body, similar to how greenhouse gases in the atmosphere trap the Earth's heat next to the Earth's surface.

Another analogy is your bed. Your blankets trap your body heat, keeping you warm at night. Greenhouse gases act like a blanket covering the Earth that traps heat next to the Earth's surface.



Credit: USDA Agricultural Research Service

If we get too warm during the day, we can take off our jacket. If we get too warm at night, we can take off one of the blankets. But if the Earth gets too warm, we have to learn to live with it.

Greenhouse gases are like the Earth's thermostat. Adding more greenhouse gases to the atmosphere is like turning up the thermostat. For example, the atmosphere of Venus consists primarily of carbon dioxide (300 times more than Earth). So the greenhouse effect is very powerful. The average atmospheric temperature on Venus is 872 degrees. Hot enough to melt lead.

We are in no immediate danger of becoming another Venus. But we are in danger of upsetting nature's thermostat and making the planet warmer and driving irreversible changes in climate.

A listing of USDA and university websites focused on weather and climate can be found on the **Ag Decision Maker Outlook page**, www.extension. iastate.edu/agdm/outlook.html#weather.



Rain, grain and prices

By Chad Hart, extension economist, 515-294-9911, chart@iastate.edu

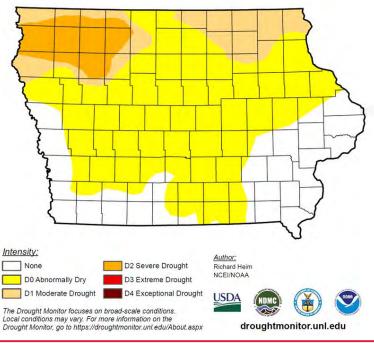
A change in the weather patterns can bring drastic changes for the crop markets. Extreme weather conditions tend to bring extremely high prices. More normal weather patterns tend to lead to lower prices on the board. We've seen these weather-driven swings in prices over the past month as the jet stream finally moved to allow Gulf moisture to make it into Iowa. The flow of moisture has improved drought conditions across the state and has led to traders planning on the potential for larger crops this fall. The old saying "Rain makes grain" has knocked some bullish sentiment out of the markets.

Figure 1 shows the Iowa drought situation at the beginning of May. Roughly 75% of the state was considered abnormally dry, with northwest Iowa having a sizable chunk of land with severe drought. Within the first week of May, the dry area expanded to almost 79% of the state. Since then, however, a combination of Gulf moisture and a series of weather fronts from the northwest have provided some needed rains for Iowa crops.

While the rains have not significantly impacted the driest parts of the state, the abnormally dry areas are retreating. As of the last drought monitor in May, only 62% of Iowa was covered by some category on the drought monitor. The northwest Iowa patch of severe drought is still in place, but the storm patterns have begun to provide more precipitation even there. National drought conditions have been improving as well, especially for areas in the eastern Corn Belt.

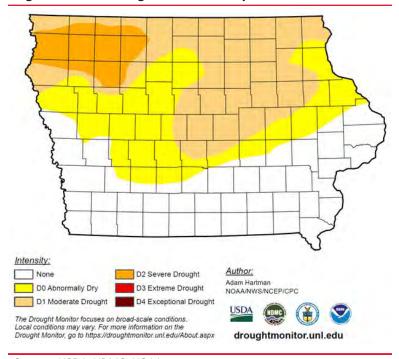
The influx of moisture has renewed thoughts about large crop supplies this fall. USDA's current estimates utilize their weatheradjusted trendline yields. Given the acreage from the March Prospective Plantings report, USDA estimates corn production at 14.99 billion bushels and soybean production at

Figure 1. Iowa drought monitor, April 27, 2021



Sources: USDA, NDMC, NOAA

Figure 2. lowa drought monitor, May 25, 2021



Sources: USDA, NDMC, NOAA



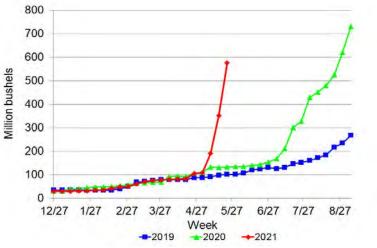
Rain, grain and prices, continued from page 7

4.4 billion bushels. At those levels, the corn crop would be the largest on record and the soybean crop would be the third largest. At this early stage in the growing season, USDA had not incorporated any impacts from the drought conditions, but the markets were already doing this. Part of the early May spike in prices can be attributed to a strong weather premium being bid into the markets, reflecting the drought conditions. The rains move into the Corn Belt and that weather premium gets cut. As the abnormally dry areas shrink, so have price levels.

While prices have retreated, they are still historically high as the drought is only part of the market story. Crop usage has been very strong over the past twelve months and that strength is continuing to support crop prices. While the COVID crisis had a dramatic impact on many areas of the general economy, the crop markets were one of the first areas to rebound and recover. While feed rations shifted to accommodate packing plant shutdowns and slowdowns, feed usage remained robust. Corn grind for ethanol dropped quickly as ethanol plants temporarily shuttered last spring, but production bounced back to 90% of the pre-pandemic level within a couple of months. However, the biggest story on the demand side has been exports. As the virus was working its way around the globe, international demand for corn and soybeans was surging. That surge has led to record export sales for both the 2020 corn and soybean crops.

As prices strengthened this spring, there has been concern that the higher prices would blunt international demand. Normally, export demand is highly sensitive to price levels. As USDA constructed their projections for the 2021 crops, they factored in reductions in export levels, given higher prices here in the US and increased production across the globe. However, early data is suggesting a strong start for crop demands for the 2021 crops. Figure 3 displays the advance export sales for corn. While those advance sales had trended along with the pace from the past couple of years through April, the pace of sales in May greatly exceeded recent history. So while market prices were reaching highs we hadn't seen in nearly a decade, export sales were moving briskly. As the numbers stand at the end of May, we have already

Figure 3. US corn advance export sales



Source: USDA-FAS

sold nearly 25% of USDA's export projection and the crop has barely emerged.

The bulk of this export surge has originated from China. With the combined impacts of the Phase One trade deal, the rebuilding of the Chinese hog herd from the effects of African Swine Fever, and the recovery of the Chinese economy as they emerge from COVID, Chinese crop demand has swelled to near-record levels. In the corn market, China transformed from a very limited purchaser of US corn to our largest trade partner this past year. For the 2020 corn crop, China bought 34% of the US exports. For 2021, China has purchased 73% of the advance sales. That is over 400 million bushels of corn. While other countries, such as Mexico and Japan, have also been active, China dominates this storyline. That also means the corn market will be especially sensitive to rumblings about commodity price inflation coming out of China. Over the past couple of weeks, the Chinese government has released several statements concerned about higher commodity prices. So there are reasons to wonder if the Chinese surge in purchases may slow in the coming months.

China has also made some early moves in the soybean market. The increase in purchases came at the beginning of the calendar year. China is explicitly responsible for 42% of these advance sales and is likely linked to much more, as sales to unknown destinations account for 37% of the advance sales. While the total amount of the crop accounted for is not quite as large as it is for corn, the advance sales

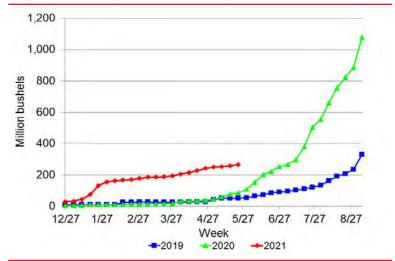
Rain, grain and prices, continued from page 8

are roughly 15% of USDA's projection for 2021-22 exports.

The combination of the weather concerns and export sales have provided a significant platform for higher crop prices over the past several months, reaching a crescendo in early May. While the rains caused both the corn and soybean markets to back off later in the month, projected crop prices remain at very healthy levels. The markets are ready to build back in additional weather premium if conditions warrant (example: the June 1 price reaction to frost concerns over the Memorial Day weekend).

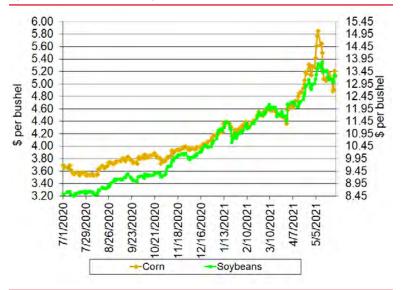
Despite the twists and turns of the past month, crop prices for harvest remain robust. Corn bids in central Iowa are well above \$5 per bushel for harvest delivery. Soybean harvest bids are north of \$13 per bushel. Demand signals have held strong in the face of higher prices, providing longer-term support for both crops beyond harvest. But it will be the weather forecast that sets the price table over the next couple of months.

Figure 4. US soybean advance export sales



Source: USDA-FAS

Figure 5. 2021/22 projected season-average prices (Derived from futures)







Poor start to having and grazing season

By Lee Schulz, extension livestock economist, 515-294-3356, lschulz@iastate.edu

A sizable swath of Iowa is bone dry and getting drier. Corn prices have surged. Hay prices lag corn prices, at least so far. But that may not last, depending on the weather.

Feed management is usually the initial livestock focus in a developing drought. Evaluating standing forage and hay supplies is critical now in order to plan how best to use and stretch those resources, if necessary.

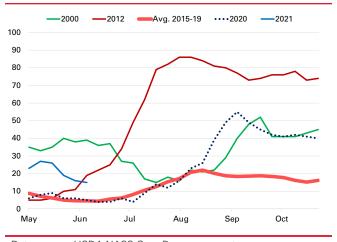
Early planning may help avoid the higher feed prices that typically accompany droughts. Animal inventory management may be required if drought conditions persist. The trade-off between buying feed, or liquidating animals, is always economically tricky. As the saying goes, "Hindsight is 20/20. Foresight Isn't."

Hoping for better conditions is fine, as long as you also plan for the worst. Failure to plan will bring easier decisions later because, unfortunately, fewer alternatives will be available and all of them may be more painful.

Worst start for forage since 2012

Hay yield is the largest factor that can change in the short-run and move hay prices. Hay yield is positively correlated with range and pasture conditions. May 3rd kicked off the pasture and range reporting season. Each Monday, USDA releases crop condition estimates in the Crop Progress report compiled by the National Agricultural Statistics Service. The week ending June 6, 2021 saw 15% of Iowa pasture acres rated in poor or very poor condition (Figure 1). This is the worst start of June since 2012 when 19% of pastures were reported in poor or very poor condition. In the first week of June 2000, 38% of Iowa pastures were in poor or very poor condition.

Figure 1. lowa pasture condition, % rated poor/ very poor



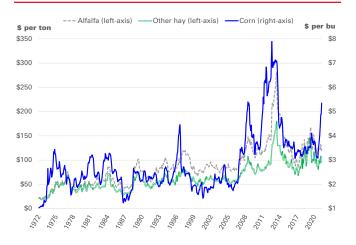
Data source: USDA-NASS Crop Progress reports.

Plotting hay prices alongside corn prices suggests a strong, predictable, relationship exists. From July 2012 to July 2013, Iowa corn prices averaged \$7.08 per bushel (Figure 2). The price received for alfalfa hay produced in Iowa was \$231 per ton. Other hay (excluding alfalfa) fetched \$148 per ton. Prices then dwindled through 2017 in a mostly synchronous fashion. In 2017, the calendar-year average for Iowa corn came to \$3.30 per bushel, alfalfa was \$103 per ton, and other hay was \$83 per ton. Corn prices more than halved in those four years, while other hay and alfalfa prices simultaneously dropped 44% and 56%, respectively. The next two years saw slightly higher prices before all prices fell congruently in 2020.

Corn prices have since rallied. Iowa corn prices advanced 74% from an August 2020 low of \$3.08 to \$5.35 in April 2021. In May, corn prices surged even higher. Hay prices have yet to follow the corn price rally. Other hay rose 10% from \$88 per ton last August to \$97 per ton in April. Iowa alfalfa went from \$121 per ton to \$120 per ton over that same period. Prices received for corn and hay, as reported here, are from USDA's monthly Agricultural Prices report and represent sales from producers to first buyers. They are survey based estimates and include all grades and qualities.

Poor start to having and grazing season, continued from page 10

Figure 2. Prices received for lowa corn and hay, monthly



Data source: USDA-NASS Agricultural Prices reports.

Will hay follow corn prices higher?

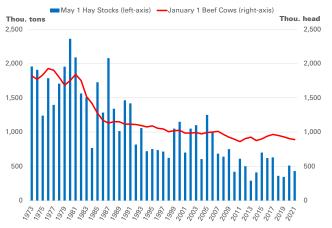
Not necessarily. These markets are indeed strongly correlated. But correlation does not automatically equal causation. Casual observers perceive that acres can easily shift among crops to quickly return to equilibrium price levels. However, a significant shift from hay and pasture production to corn seems unlikely. Much of the hay is perennial. Higher feed prices will make forage crops even more valuable. Specialized hay machinery can be a large up-front cost that needs to be recouped over many years. For pasture, its fencing, watering systems, and multi-year pasture management that provides some fixity.

In most markets many factors drive prices. Supply, demand and prices of hay are no different. Hay is a highly regional crop. It can have dramatic production and price differences among states. Plus, hay is a difficult commodity to transport, which can exacerbate supply situations.

USDA's May Crop Production report included national hay stock estimates and hay stocks by state. The estimates are based on a National Agricultural Statistics Service survey of producers. As of May 1, 2021, Iowa hay stocks were 430,000 tons, down 80,000 tons, or 16%, from May 1, 2020 (Figure 3). But May 1 Iowa hay stocks were up 25,000 tons or 6% higher than the 2018-2020 average. Nationally May 1 hay stocks tallied 18.0 million tons, down 12% from May 1, 2020, but 7% higher than the 3-year average.

Figure 3. Iowa Hay Stocks and Beef Cows

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Data source: USDA-NASS Crop Production reports and Cattle reports.

Head counts drive hay demand

The hay crop year runs from May through April so the May 1 stocks are the beginning stocks for the current year. Beginning stocks suggest some increased supplemental feeding could be accommodated.

One common measure of feed demand is from roughage consuming animal units (RCAU), which weights different types of livestock by the amount of non-grain feed consumed. Various demand segments include dairy cattle, cow-calf operations, beef feedlots, sheep and goats, equine, processing and exports. The Livestock Marketing Information Center has a supply and demand balance sheet for all hay. LMIC projects this year's national hay supply will be the highest per RCAU since the 2017/2018 year.

Hay use per RCAU will be a big wildcard. It depends on how much supplemental feeding is needed, which, in turn, depends on pasture conditions. Interestingly, 53% of Iowa pastures are in good or excellent condition. This is only somewhat lower than is typical for early summer. For the first week of June 2012, 45% of Iowa pastures were in good or excellent condition. It was only 30% in early June 2000. Better conditions in parts of Iowa and surrounding states, will improve ability to find and move hay to where it is needed.

The Iowa RCAU tally is heavily weighted by beef cattle. On January 1, 2021 the Iowa beef cow inventory was 890,000 head, down 2% from the



Poor start to having and grazing season, continued from page 11

year prior. This was the smallest Iowa beef cow inventory since 2014. The Iowa dairy cow inventory is steady with recent years. The Iowa sheep inventory at 160,000 head was up 6% to begin 2021 and the largest since 2018. The 65,000 head of Iowa goats is steady with recent years.

Measure of supplemental feed needs

USDA categorizes pasture and range as very poor, poor, fair, good or excellent. Those designations indicate how much supplemental feeding is required to maintain livestock condition. A "very poor" rating

indicates pastures provide very little or no feed considering the time of year. Supplemental feeding is required to maintain livestock condition. A "poor" rating suggests pastures are providing only marginal feed for the current time of year. Some supplemental feeding is required to maintain livestock condition. "Fair" pastures are providing generally adequate feed, but still less than normal for the time of year. "Good" pastures are providing adequate feed supplies for the current time of year. "Excellent" pastures are supplying feed in excess of what is normally expected at the current time of year.

Updates, continued from page 1

Internet Updates

The following Information Files, Decision Tools and Video have been updated on www.extension.iastate.edu/agdm:

Specialty Crop Insurance Options – Overview and Resources – A1-62 (3 pages)

Specialty Crop Insurance Options Video – A1-62 (https://vimeo.com/558269485)

Farm Employee Management: Protect Farm Workers from Heat-Related Stress and Illness – C1-85 (2 pages)

Cash to Accrual Net Farm Income Worksheet – C3-26 (Decision Tool)

Comprehensive Farm Financial Statements - C3-56 (Decision Tool)

Checklist for Iowa Agricultural Employers – C6-58 (4 pages)

Current Profitability

The following profitability tools have been updated on www.extension.iastate.edu/agdm/info/outlook.html:

Corn Profitability - A1-85

Soybean Profitability - A1-86

Iowa Cash Corn and Soybean Prices - A2-11

Season Average Price Calculator – A2-15

Ethanol Profitability – D1-10

Biodiesel Profitability - D1-15

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