

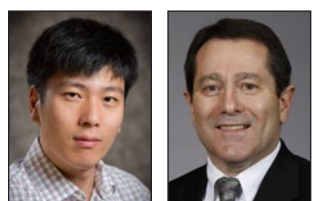


# Ag Decision Maker



## A Business Newsletter for Agriculture

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### Agricultural professionals expect lower land values and stable crop prices

By Wendong Zhang, extension economist, 515-294-2536, [wzhang@iastate.edu](mailto:wzhang@iastate.edu) and Steven Johnson, extension farm management specialist, 515-957-5790, [sdjohns@iastate.edu](mailto:sdjohns@iastate.edu)

**Over 270** agricultural professionals attended the 2019 ISU Soil Management Land Valuation (SMLV) Conference this past May. This is the longest running conference at Iowa State University for both research and extension, and 2019 marked the 92nd annual meeting in this series. Over 150 participants provided their estimates of future land values as well as future cash corn and soybean prices in their primary county in Iowa via an online Qualtrics survey. Overall, the agricultural professionals forecasted a continued modest decline in land values in Iowa as well as stable cash crop prices. This article provides an overview discussion of these forecasts, and shares perspectives on future land and crop markets as well as risk management strategies.

**Land value forecasts**  
Agricultural lenders accounted for one third of all respondents, followed by farm managers, real

estate brokers/realtors, appraisers, and auctioneers. Each respondent provided the name of the primary county that they provide service in, and then was asked to provide estimates for land values and cash commodity prices for the service area. Each respondent provided dollar per acre estimates of land values for May 2019, November 2019, November 2020, November 2021, November 2025, and November 2040; and we calculated the average estimate of the percentage change in land values relative to May 2019. We did this transformation because the percentage change estimates are more transferrable than land value estimates with other data sources. We grouped all individual counties into one of the four quadrants across Iowa and calculated the regional-average short-, medium-, and long-term land value estimates, as well as the statewide average land and crop price estimates. These results are presented in Table 1.

Table 1 shows that overall respondents expect a 2% decline in land values in their local area over the next six months from

*continued on page 2*

**Handbook updates**  
For those of you subscribing to the handbook, the following updates are included.  
**Delayed and Prevented Planting Provisions** – A1-57 (6 pages)  
**Replacement Strategies for Farm Machinery** – A3-30 (7 pages)  
**Historical County Cropland Rental Rates** – C2-11 (11 pages)  
Please add these files to your handbook and remove the out-of-date material.  
*continued on page 6*

**Inside . . .**  
Taking care of YOU in turbulent times - from one “dairy girl” to the next. . . . .Page 4

Agricultural professionals expect lower land values and stable crop prices, continued from page 1

May to November 2019. It also shows that these agricultural professionals expect the land market in Iowa to remain flat from November 2019 to November 2020. In particular, they expect land values to decrease by 2.1% from May to November 2019, while the expected land value decline is 2.2% from May 2019 to November 2020. In contrast, the respondents expect only 1.0% decline from now to November 2021, which is equivalent to an expected 1% increase in land values from November 2020 to November 2021. To summarize, the agricultural professionals expect an immediate, modest decline in land values, followed by stable to slightly rising land markets. It is important to note that the annual inflation rate over the next few years will likely be close to 2%, so even the 1% bump in nominal land values from 2020 to 2021 would be modest declines in inflation-adjusted terms.

Put simply, land value equals income divided by interest rate. U.S. farm income has fallen by half off the 2013 peak, and the records from the Iowa Farm Business Association show that a quarter of producers are experiencing liquidity problems and low working capital. The heightened uncertainty about the U.S.-China trade relations is another reason for the dampened commodity and land market outlook. U.S. Federal Reserve is likely to hold off its moves to further raise interest rates, which helps ease the downward pressure on the land market. However, the previous interest rate hikes will take several years to be absorbed in the land market. The expected land market declines are consistent with other data sources: for example, the percent of respondents expecting a lower land value a year from now jumped from 20% to 28% according to the [Purdue University Ag Economy Barometer](https://ag.purdue.edu/commercialag/ageconomybarometer/), <https://ag.purdue.edu/commercialag/ageconomybarometer/>.

It is worth noting that income is often localized while interest rates are often universal, leading to local variations across land market changes. Table 1 revealed that northern Iowa expected a slightly larger immediate drop in land values compared to southern Iowa, and northwest Iowa is the only region that expects a minor increase in land values from November 2019 to November 2020, while all other areas expected more declines. This likely is due to higher livestock mix of northwest Iowa and stronger demand for higher quality land.

Table 1 also presents the respondents' medium- and long-term land value forecasts for November 2025 and 2040. Granted, we should interpret these results with a grain of salt given their longer horizon. In general, the respondents expect the land market to bounce back in five years and continue to rise in the long run. It is informative to compare their current forecasts with their forecasts last year: in May 2018, the respondents had a rosier outlook about the long run land values. They expected a 16% increase in land values from May 2018 to November 2025, and 57% increase in land values from May 2018 to November 2040. The reduction in the optimism among the respondents likely reflects growing concerns about U.S.-China trade disruptions and financial stress.

**Table 1. Estimated Land and Commodity Price Forecasts at the May 2019 SMLV Conference**

Land	Average estimate of percent change since May 2019				
	NW	NE	SW	SE	STATE
Nov 2019	-2.3%	-2.6%	-1.5%	-1.1%	-2.1%
Nov 2020	-2.1%	-3.1%	-1.7%	-1.4%	-2.2%
Nov 2021	-0.7%	-2.1%	-0.6%	0.1%	-1.0%
Nov 2025	11.5%	7.8%	9.7%	8.4%	9.5%
Nov 2040	46.8%	43.6%	49.5%	40.1%	45.0%
Commodity Cash Prices (\$/bushel)					
	CORN		SOYBEAN		
May 2019	\$	3.41	\$	8.08	
Nov 2019	\$	3.45	\$	8.15	
Nov 2020	\$	3.65	\$	8.58	
Nov 2021	\$	3.85	\$	9.67	

**Commodity price forecasts**

Table 1 also presents the respondents' average statewide forecasts of cash corn and soybean prices for May 2019, November 2019, November 2020, and November 2021. On average, the respondents expect the November 2019 cash corn and soybean prices are \$3.45/bushel and \$8.15/bushel, respectively. And they expect the cash prices to increase slightly to \$3.85/bushel and \$9.67/bushel for corn and soybean two years from now. It is worth noting that the respondents expect a much higher jump for cash soybean prices from November 2020 to November 2021. This may implicitly reflect how respondents anticipate improvements in soybean trade.

*Agricultural professionals expect lower land values and stable crop prices, continued from page 2*

It should be noted that forecasting cash corn and soybean prices at four points in time from May 2019 thru November 2021 to prove more challenging than that of land values, even with the existence of commodity futures markets. That is because of the uncertainty of U.S. and global supply and demand for those crops over that period forecast. Also, the cash prices forecasted reflect a basis consideration (cash minus the nearby futures contract price) which during the month of November in Iowa could mean cash prices 20 to 50 cents per bushel for corn and 50 cents to \$1.00 per bushel for soybeans below the futures prices at harvest. These futures contracts tend to be December for corn and November for soybeans, respectively.

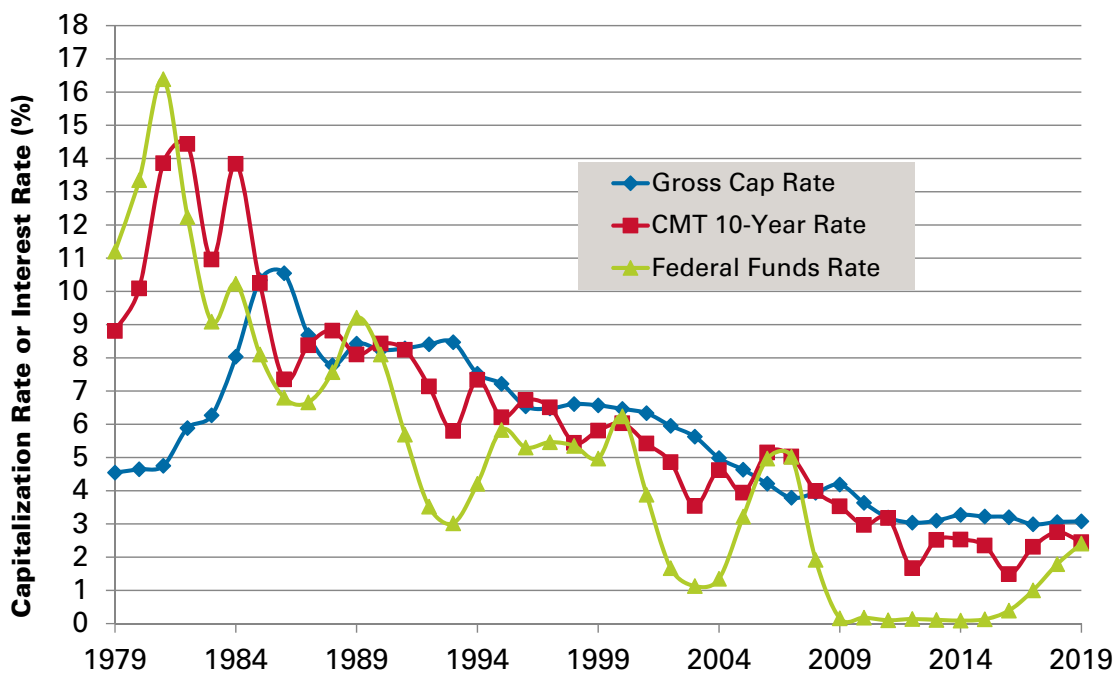
Now, consider the unknown of adverse weather conditions, during late April and first half of May 2019 when most respondents provided their crop cash price forecasts. During the last half of the month of May, wet conditions continued with planting delays across much of the Corn Belt. As a result, the December 2019 corn futures prices rallied nearly 90 cents per bushel (24% higher) and November 2019 soybean futures by \$1.00 per bushel (12% higher), respectively.

In summary, when forecasting corn and soybean cash prices, one must consider several factors that affect global supply and demand that impact these commodities. Note, respondents were forecasting only cash commodity prices for four different periods, which reflected an assumed basis. Missing in these forecasts was the underlying seasonality of new crop futures prices, which had yet to occur in 2019. Expect futures price rises occur most years during the spring months and can impact commodity cash price forecasts collected during the late April and early May timeframe.

### Gross capitalization rate forecasts

Finally, the respondents provided cash rent estimates for the corresponding time-horizon, for which we calculated the gross capitalization rates for the land market as their gross cash rent estimates divided by land value estimates (Table 2). Interestingly, the respondents expect the gross capitalization rates to be stable around 3.3% from now to 2040. In other words, respondents expect cash rent to rise or decrease at the same pace with the land values.

**Figure 1. Historical gross capitalization rate based on Iowa State University cash rent and land value estimates vs. CMT-10 rates and federal funds rate 1979-2019**



Agricultural professionals expect lower land values and stable crop prices, continued from page 3

**Table 2. Estimated Gross Capitalization Rate for Land Value at May 2019 SMLV Conference**

(Estimated Cash Rent / Estimated Land Value)

	NW	NE	SW	SE	STATE
May 2019	2.9%	3.2%	3.6%	4.1%	3.3%
Nov 2019	2.9%	3.3%	3.6%	4.1%	3.3%
Nov 2020	2.9%	3.2%	3.6%	4.1%	3.3%
Nov 2021	3.0%	3.3%	3.7%	4.0%	3.4%
Nov 2025	3.0%	3.3%	3.7%	4.2%	3.4%
Nov 2040	3.3%	3.2%	3.4%	4.1%	3.4%

Using average cash rent and average farmland values from the ISU Cash Rent Survey and ISU Farmland Value Survey from 1979 to 2018, respectively, we calculated the gross capitalization rates in the same

fashion by dividing the statewide average cash rent by state average land values. We then contrast the historical gross cap rates with two benchmark interest rates: the 10-Year Treasury Constant Maturity Rate (CMT-10 rates) and the Federal Funds Rate which is directly set by Federal Reserve Bank. Figure 1 shows that over the past three decades, the gross capitalization rates for the farmland market in general followed closely with the CMT-10 rates. Interest rates not only affect the financing costs for land purchase, but more importantly it reflects the returns on alternative risk-free assets in addition to farmland. Currently, interest rates are still on an upward trajectory, which could imply a higher capitalization rate. That could imply a lower land value, which is consistent with the respondents' land value forecasts shown in Table 1.



## Taking care of YOU in turbulent times From one “dairy girl” to the next...

By Jenn Bentley, Iowa dairy specialist, ISU Extension and Outreach, [www.extension.iastate.edu/dairyteam/](http://www.extension.iastate.edu/dairyteam/)

This is the fourth article in a series from the ISU Extension and Outreach Dairy Team on [Dealing with Farm Stress](http://www.extension.iastate.edu/dairyteam/familyfarm-stress), [www.extension.iastate.edu/dairyteam/familyfarm-stress](http://www.extension.iastate.edu/dairyteam/familyfarm-stress).

**Farm Women** have evolved in their farm roles, from traditional “bookkeeper” to now playing multiple roles both on and off the farm. Coupled with traditional roles that women tend to keep including household, children and community activities, it can enhance levels of stress as these roles become intertwined.

This often results in symptoms of anxiety, worry, and stress—trying to balance farm, family, and non- farm activities. Yet, families choose this lifestyle to raise their families on the farm, being their own boss and knowing the values that can be instilled in raising children there.

As a dairy girl myself, a wife and mom, still engaged in our 4th generation farm and the dairy community, having seen stress play out, I think the DAIRYGIRL acronym can be a summary of positive ways we can take care of ourselves during stress or turbulent times.

### Remember DAIRY GIRL:

- D**eep Breathe
- A**ctive Goals and Exercise
- I**mplement change
- R**emember your TEAM why?  
What’s your WH**Y**?
- G**ratitude
- I**ncrease Happiness
- R**estore-mind, body, soul
- L**earn everyday

My role in Extension has typically focused on dairy production management. The Dairy Girl concept will focus on “YOU” management as it’s hard to take care of cows or loved ones if you haven’t first taken care of YOU!

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The secret to living well and longer is: eat half, walk double, laugh triple and love without measure.

– Tibetan Proverb

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Taking care of YOU in turbulent times, continued from page 4

**Deep Breath** – Start your day with a deep breath to inhale the future and exhale the past. Take 10 minutes and plan out your day from daily farm chores to household grocery list or meal plan. Understand that it may not always go as planned (cow calves, tractor breakdown, child is sick), and use deep breathing techniques to reduce stress until a new plan can be made.

**Be Active** – Keep your SMART (specific, measurable, attainable, relevant, timely) goals in front of you and be proactive in achieving and sharing them as a farm family. Know Procrastination Increases Stress! Exercise Reduces Stress! Stay active!

**Implement Change** – Try spelling Challenge without Change. If you're going to rise to the challenge, you must be prepared to change. Instead of "I can't change milk prices" or "I can't work with him/her", create re-frames for your thoughts to "I can change how I..." then follow through implementing.

**Remember** – Who's on your team? Surround yourself with positive people, those that talk more about constructive thoughts and ideas and less about other people. Remember, you become like the five people you spend the most time with. So, who do you want to become? Remember to bond with them.

**WHY?** – Take a step back and practice self-awareness. Visualize what's important and why. But, if a crisis occurs, don't get stuck in the WHY?!!!

**Gratitude** – There is so much beauty around us and often we forget to look up. Create a gratitude journal and write down three things you're grateful for each night. They can be simple things; family meal, funny joke, someone's laugh, and you'll quickly realize those simple things add up to the greatest moments in life.

**Increase Happiness** – When everything else is out of your control, you can be in the driver's seat of happiness. They say laughter is the best medicine! And it's contagious, if you're happy, it often spreads to those closest to you.

**Restore** – You can't pour from an empty cup. Making health a priority is important for your mind, body, and soul. This includes exercise, sleep, hydration, and fueling your body with nutritious foods. Some find running, reading, gardening, or faith and community service additional ways to fill their cup back up. It's important to know what works for you, take time to do what makes your soul happy. And smile, it relaxes and restores peace of mind.

**Learn** – Learn from people who inspire you, spend time with them and ask for their help. And, Learn to help others—It tends to make us feel most human. As you actively share your goals with family members, learn about their goals.

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**Mental health matters!** You are worth more than the sum of all your problems. Don't be afraid to use mental health resources

*"Faith is taking the first step even when you don't see the whole staircase" – Martin Luther King Jr.*

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Extension and Outreach

Iowa Concern Hotline  
800-447-1985

Free and confidential  
24 hours per day, 7 days per week  
Dial 711 for TTY/TDD  
iowaconcern@iastate.edu

We are here to help!



Updates, continued from page 1

**Internet Updates**

The following Information File and Decision Tool have been updated on [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm).

Breakeven Worksheet for Crops – A1-20 (Decision Tool)

Delayed Planting and Replanting Evaluator – A1-57 (Decision Tool)

Cropland Cash Rental Rate Estimation – C2-20 (Decision Tool)

Income Tax Considerations When Transferring Depreciable Farm Assets – C4-81 (3 pages)

**Current Profitability**

The following tools have been updated on [www.extension.iastate.edu/agdm/info/outlook.html](http://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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