



delta institute



*ILLINOIS SOIL HEALTH LAND
VALUATION MARKET RESEARCH*

UPDATED JULY 2023

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EXECUTIVE SUMMARY

Promoting Soil Health and the adoption of Soil Health Management Systems (SHMS) to farmers is a key priority for the USDA-NRCS, conservation scientists and NGOs. However, [prior research by Delta Institute](#) suggests a lack of economic incentives prevent Illinois farmers from adopting SHMS at scale. Furthermore, **Illinois' land valuation system does not explicitly establish a link between Soil Health and land value**. To be sure, federal cost-share programs such as the [Environmental Quality Incentive Program](#) (EQIP) and the [Conservation Reserve Program](#) (CRP) offer farmers financial assistance to adopt SHMS, but applicants cite a lack of administrative capacity or eligibility to secure funding. Therefore, to create greater financial incentives for Illinois farmers to adopt SHMS, Delta Institute, Compeer Financial and the Soil Health Institute seek to create a place-based appraisal methodology to incorporate Soil Health into the farmland valuation process.

In prior stages of work, Delta Institute described the institutional friction between [Land Value and Soil Health in Farmland Appraisals](#) and outlined costs and procedures of [Soil Health Testing](#). Following feedback and additional input from farmland brokers and appraisers, two novel appraisal interventions were selected for development: a *Soil Health Index* and an *Inventory of Comparable Properties* that have adopted SHMS. Now, to support the next stage of work – piloting the two aforementioned interventions among a cohort of 10 Illinois farms within MLRA 108 – Delta offers this analysis of Illinois' farmland real estate market from 2017—2023. **This report synthesizes market signals of farmland real estate in Illinois to uncover driving factors that place value to land** using publicly available data. These findings will inform the ultimate goal of institutionalizing Soil Health as a factor in the land appraisal process in Illinois.

About Delta Institute

Established in 1998, Delta Institute collaborates with communities to solve complex environmental challenges throughout the Midwest. We address Midwestern environmental, economic, and climate challenges today, so that our home and region are more resilient, equitable, and innovative tomorrow.

Through our Resilient Agriculture program, Delta Institute supports 1,000 farmers as they transition to sustainable and regenerative practices, thus improving the environment, mitigating the impacts of climate change, and strengthening a farmer's bottom line. We forecast that by 2025, one million Midwestern agricultural acres will successfully transition to conservation- focused farming practices, so our region's primary economic driver can be more environmentally and financially sound.

Our work takes us to population centers like Chicago, St. Louis, and Detroit; to mid-sized cities such as Gary and South Bend, Indiana; to Great Lakes coastal towns like Michigan City, Indiana and Muskegon, Michigan; and to rural communities and watersheds with tens of thousands of acres of farmland and waterways. It's quite likely that you—or someone you know—lives, works, or passes through a community that Delta has helped since our founding. Delta Institute maintains a Platinum Seal of Transparency from Guidestar and has a Four-Star Rating from Charity Navigator. Visit us online at www.delta-institute.org.

Acknowledgements

This project was produced with generous support from the Walton Family Foundation.

This document and the tools provided aim to be action oriented and to provide the most current, correct, and clear information possible, but some information may have changed since publication. We encourage practitioners to reach out to us at delta@delta-institute.org with questions, corrections, or to discuss implementation challenges.

Key Terms and Related Usage within this Document

- **Absentee Landowner:** Landowner that does not live on/manage the land themselves. For example, individuals or institutions that own farmland but hire farm operators or lease land to tenant farmers.
- **Prime Agricultural Land Classes:** Illinois classifies Agricultural Land into three Classes: A, B and C. Land Classes are determined by their Soil Productivity Index (PI) scores: A (PI scores of 133-147), B (PI scores of 117-132), and C (PI scores of 116-100). Land with soils that have PI scores of 99 or lower are not considered Prime.
- **Arm's Length Sale:** A transaction between unrelated parties who are acting in each of their own best interest (Appraisal Institute, 2022).
- **Appraisal:** The valuation of property used to determine a selling price typically based on market data or, in the case of farmland, an estimate of future benefits such as rental income or commodity prices (Kenton, 2022).
- **Cash Rent Lease:** Tenant farmer pays a fixed dollar amount in rent (per acre, per field or whole farm) to the landowner. The tenant farmer receives all crop revenue and pays all crop expenses.
- **Cropland:** Land used to grow field crops, vegetables, or harvested for hay. Land that switches back and forth between cropland and pasture should be valued as cropland. Hay land, idle cropland, and cropland enrolled in government conservation programs should be valued as cropland (USDA, 2022).
- **Farm:** Any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year. Government payments are included in sales (USDA, 2022).
- **Farm Real Estate:** All land and buildings used for agricultural production, including dwellings, that could be sold under current market conditions (USDA, 2022).
- **Major Land Resource Area (MLRA):** Geographic boundaries used for decisions regarding national and regional land resource issues (e.g., watershed quality, soil erosion) as well as extrapolating research results across political boundaries (MLRA Geographic Database, 2022; USDA Agriculture Handbook 296).
- **Market Value:** Assumes the most probable price, an open/competitive market where buyers/sellers are motivated and both parties are well informed and acting in their own best interests (Pursuant to title IX of the Financial Institutions Reform, Recovery and Enforcement Act, 1989).
- **Pastureland:** Land that is normally grazed by livestock. Pasture does not need to have livestock grazing on it during the current year in order to be valued as pastureland (USDA, 2022).
- **Soil Health:** The capacity for soils to support life and provide crucial ecosystem services such as water filtration, nutrient cycling, decomposition and mineral sequestration. Soil Health is quantified by measuring 'soil health indicators' – a standardized criteria of essential soil physical, chemical and biological properties.
- **Soil Health Management Systems (SHMS):** Agricultural strategies that prioritize the health of soils and prevent soil degradation. SHMS – such as reduced tillage and cover crops – decrease soil erosion, improve water infiltration, increase soil carbon and reduce costly inputs that have adverse environmental impacts (Soil Health Institute, 2022).
- **Soil Productivity Index (PI):** An indicator of the suitability of soils for crop production derived from the mean annual yield that a soil type produces over a 10-year period with moderately managed crops. PI scores run from 0 – 147. A higher PI directly indicates more productive soil for certain crops. Other characteristics factored into a soil's PI include soil organic matter, drainage, slope, and location (University of Illinois: Bulletin 811, 2000).

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OVERVIEW: FARMLAND APPRAISAL

Farmland appraisers are required by law to ‘protect the public trust’ by providing objective assessments of land value based, in part, on agricultural real estate market data. The value of farmland is equal to its ‘discounted future returns’. Future returns are represented by income streams such as commodity sales and cash rent leases. Interest rates on mortgage loans and operating costs discount these returns. The balance between these forces determines the status of the agricultural real estate market. **Since 2017, returns on commodity sales (corn and soybean) and cash rent leases have consistently grown, outweighing discount factors to increase farm incomes and the value of Illinois farmland.** Farmland also enjoys a reputation, in recent decades, of being a more stable long-term investment.

Illinois’ agricultural economy is largely driven by corn and soybean exports. Most Illinois farms are 1-179 acres (please see *Figure 4* on page 10) and owned and operated by individuals or families. Most farm owners are at least 55 years old. Since 2017, the number of Illinois farms has decreased, but the average farm size has increased. Since 2017, the value of Illinois farmland (\$/acre) has increased substantially. Farm Real Estate (includes buildings) and Cropland are the most valuable assets (both have appreciated in value by approximately 24%).

This trend was observed in all states of the Corn Belt region. Farmlands with high soil Productivity Index (PI) scores were shown to be the most valuable – appreciating in value by nearly 30%. High soil PI-scored land was most valuable in the North Central, Central and Southwest regions of Illinois. Farmland with lower soil PI’s also increased in value across the state, but by lower percentages.

Most farmland is bought by local farmers. However, since 2017, absentee landowners (investors and institutions) have begun to purchase more farmland. Growth in market participation by absentee landowners may have increased the prevalence of debt financing on farmland purchases. The majority of farmland is sold at public auctions to settle estates. It is likely that the COVID-19 pandemic catalyzed the dominance of virtual sales, which has replaced private treaties as the prominent method of selling farmland.

Together, these results suggest Illinois’ agricultural real estate market has been super-charged by fundamental drivers such as strong capital returns and a turbulent economic and geo-political backdrop. Despite higher interest rates on mortgage loans, farmland sales continue at unprecedented prices. A slow, but perceptible shift in market participants may signal coming changes to how farmland is bought and sold. It is possible that Illinois farmland may be held by absentee landowners for less time than farmers. In other words, changes in *who* owns farmland may have consequences as to *how* farmland is managed. If new Soil Health-based appraisal methodologies can incentivize the adoption of SHMS, new landowners may opt to differentiate their land from conventionally managed competitors.

Delta’s efforts to link Soil Health and Land Valuation in Illinois have far-reaching implications in the wider Great Lakes and Corn-belt regions. Currently, as part of our project scope Delta is conducting outreach in Indiana and Iowa to raise awareness and engagement among real estate experts and farmland appraisers of the environmental and economic benefits of improved Soil Health, as well as providing resources to support the expansion of Delta’s Soil Health Land Valuation (SHLV) work.

Beyond these efforts, Delta has developed [interventions for piloting Soil Health and Land Valuation in Michigan](#) with the support of the Fred A. and Barbara M. Erb Family Foundation; this aligned yet distinct scope is providing additional geography and learnings for our overall Midwestern efforts. Indeed, by identifying the economic benefits of investing in Soil Health, Delta is working with farmers and landowners across the Great Lakes and Corn-belt regions to understand the long-term value of adopting sustainable agricultural practices.

FARMLAND APPRAISAL METHODOLOGY

This report synthesizes five years (2017 – 2023) of publicly available real estate market data from several sources. The primary source of market data comes from the USDA's [National Agricultural Statistics Service](#) (NASS), which performs the [Census of Agriculture](#) every five years (e.g., 2007, 2012, 2017). This census provides a comprehensive picture of U.S. Agriculture by gathering information through surveys on demographics, land values, crop acreages, crop yields and taxes. As of the completion of this report, the 2022 Census of Agriculture has not yet been published. USDA NASS also publishes annual reports such as the [State Agriculture Overview](#) and the [Land Values Summary](#). Further information about Illinois agriculture was sourced from the Illinois Department of Agriculture. Supplemental real estate market data was derived upon request from Compeer Financial, a paid subscription to [AcreValue](#), reports by the University of Illinois' [farmdoc daily](#) as well as annual surveys performed by the [Illinois Society of Professional Farm Managers and Rural Appraisers](#).

Appraisers and Market Conditions

Farmland appraisers are crucial arbiters of valuation methodology and interpreters of market conditions. Appraisers help buyers/sellers make decisions, guide borrowers/creditors in the mortgage loan process and assess property tax. By law, appraisers must 'protect the public trust' by providing objective assessments of value, which protect market participants and prevent speculation, excessive lending as well as risk taking.

To do so, appraisers use a standardized valuation methodology (Figure 1). Industry oversight is performed by State Regulators (issue credentials, investigate malpractice), the Appraisal Subcommittee (protects federally regulated financial institutions) and the Appraisal Foundation (creates appraisal standards/qualifications) (Appraisal Institute; American Society of Farm Managers & Rural Appraisers; American Society of Appraisers, Basic Appraisal Principles 101). From this, we see how the appraisal system is institutionalized to 'protect the public trust' using standardized procedure and governance.

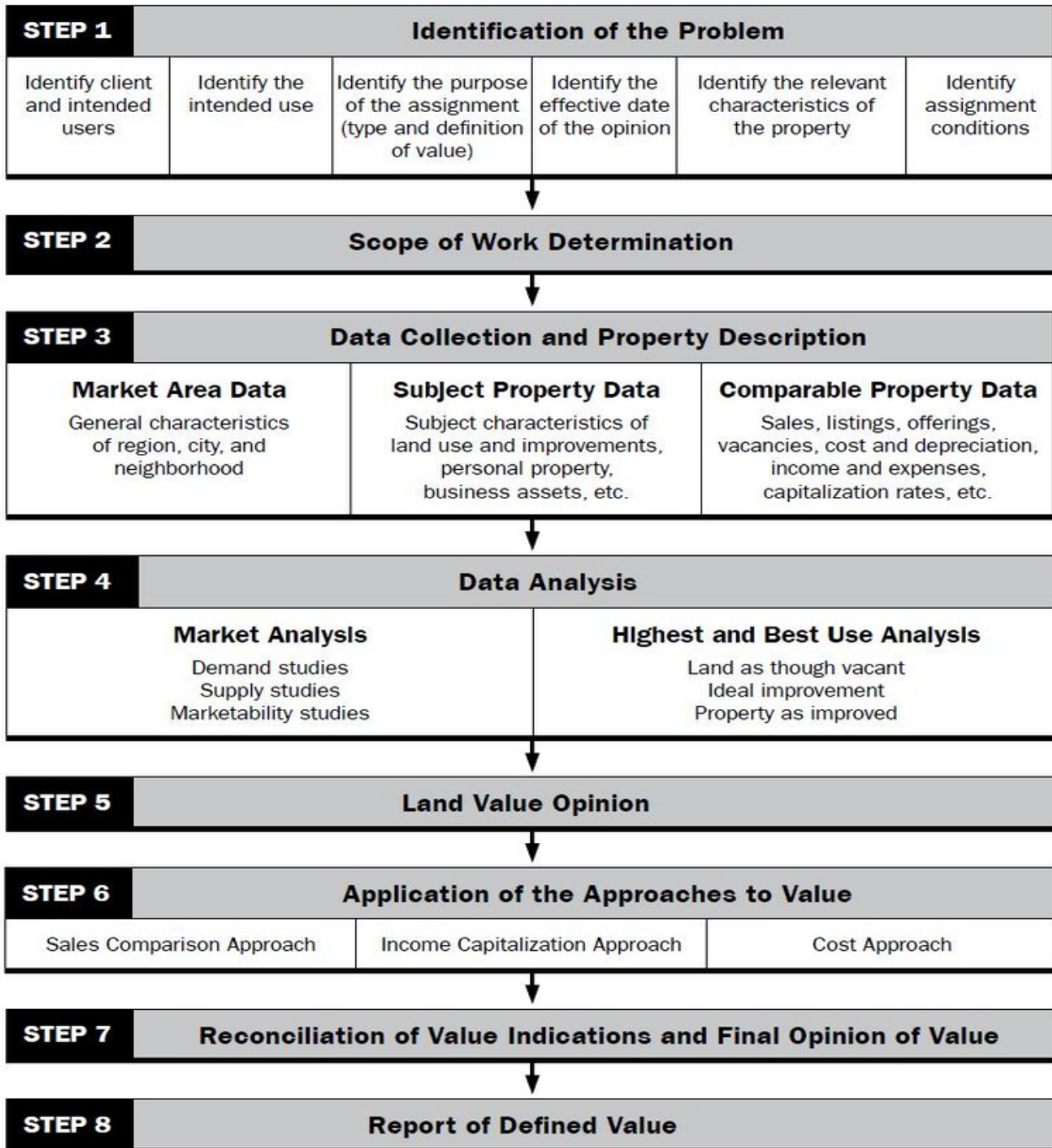
Appraisal protocol requires an analysis of market conditions to provide value opinion or most probable price to clients. Therefore, in order to effectively intervene in the appraisal process, we must examine market conditions to better understand the drivers of agricultural real estate value. First, we describe Illinois' agricultural economy as the context in which the agricultural real estate market exists. Second, we characterize market participants. Third, we analyze trends of Illinois' agricultural real estate market since 2017. Finally, we offer a discussion of the known drivers of agricultural real estate market trends.

The valuation process is summarized in brief on page 8.

The Land Valuation Process

Delta has extensive history in exploring and analyzing the land valuation process. In prior stages of work, Delta analyzed institutional and systemic links between [Land Value and Soil Health in Farmland Appraisals](#), outlined costs and procedures of [Soil Health Testing](#), and detailed Soil Health characteristics relevant to land valuation in Illinois. Please review our website for multiple related publications and resources.

The Valuation Process



Source: Adapted from *The Appraisal of Real Estate*, 14th ed., P. 37, Fig. 4.1. Chicago: Appraisal Institute, 2013.

Figure 1: Summary of the appraisal process according to the Uniform Standards of Professional Appraisal Practice. Source: Appraisal Institute.

Illinois Agricultural Economy Overview

The USDA categorizes states into economic regions – the Corn Belt economic region is comprised of Illinois, Indiana, Iowa, Missouri and Ohio. Illinois has 70,900 farms, covering 27 million acres – about 75% of the state's total land area ([USDA NASS, 2021](#)). Illinois farms produce commodities such as corn, soybeans, swine, cattle, goats, dairy, poultry, wheat, oats, sorghum, hay, fruits and vegetables, buckwheat, horseradish, fish and Christmas trees.

The vast majority of agricultural land in Illinois is Cropland (89%, approximately 24 million acres) (Figure 2). Woodland (approximately 1.4 million acres), Pastureland (approximately 825,000 acres) and Conservation Reserve Program land (approximately 850,000 acres) comprise the remaining fraction ([USDA Census of Agriculture, 2017](#)). The majority of Illinois Cropland (approximately 80%) is planted with corn and soybeans: 11 million acres and 10.6 million acres, respectively.

In 2021, Illinois farms generated approximately \$19 billion of agricultural commodities: 54% corn, 27% soybean, 13% livestock, dairy and poultry and the remaining 6% wheat, fruits and vegetables ([IL Dept. of Agriculture, 2022](#)). Illinois ranks 1st in the US for exports of soybeans (\$3.9B) and 2nd for corn (\$2.7B) ([USDA Economic Research Service, 2022](#)).

Between 2017 – 2021, the number of farm operations in IL decreased from 72,700 to 70,900 and the average size of operations increased from 371 acres to 381 acres (Figure 3). In other words, in a four-year period, IL farmland has consolidated into fewer operations ([NASS State Agriculture Overview, 2021](#)).

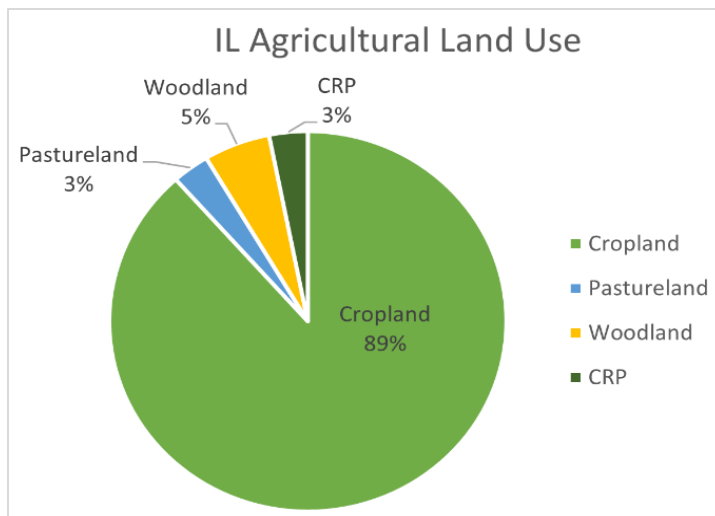


Figure 2: Agricultural Land Use in Illinois. Source: USDA NASS Census of Agriculture, 2017.

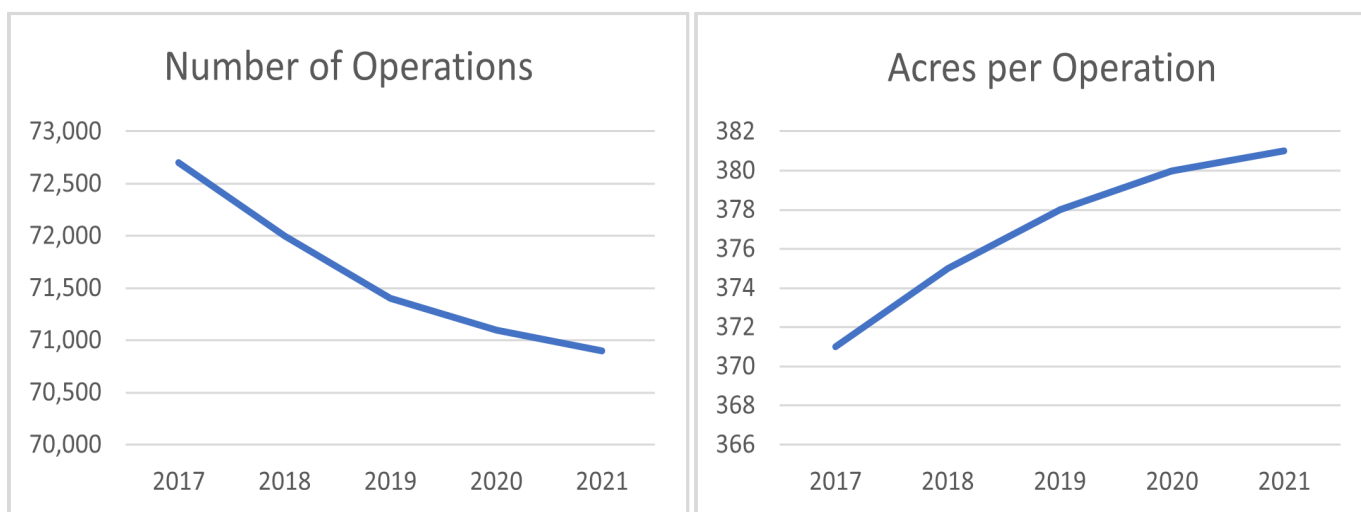


Figure 3: Numbers of Operations and Acreage per Operation of Illinois Farms between 2017 – 2021. Source: USDA NASS, 2021.

Taken as a whole, Illinois' agricultural economy may be characterized as robust and primarily driven by the production of cereal grain (corn) and oil seed (soybean) commodities. Since 2017, the operations that produce these commodities have decreased in number but increased in size.

Illinois Agricultural Real Estate Market Participants

The most recent Census of Agriculture reports 75,087 farm operators in Illinois. The majority of Illinois farm operators are male (90.8%) and at least 55 years old (60.6%), with an average age of 57.8 years old. Most farms (84.5%) are owned by an individual or family, as opposed to a corporation or partnership. The majority of farm owners are the primary operators (59.5%). Nearly half (49%) of IL farmers hold jobs off the farm and consider farming their secondary occupation. These results characterize the average Illinois farmer as an older male, who likely owns and operates their farm, and likely has a second non-farming occupation for a variety of economic reasons.

Illinois farms vary by size (Figure 4). The majority (35.6%) of farms are 1-49 acres; 26.5% are 50-179 acres; 16.8% are 180-499 acres; 10.3% are 500-999 acres; and 10.8% are 1,000 acres or more ([USDA Census of Agriculture, 2017](#)).

Absentee landowners (e.g., investors and institutions) represent a smaller group of market participants. Agricultural economists describe farmland as a valuable asset to absentee landowners based on the perception that it is a stable investment, especially during times of economic inflation and global crises (e.g., Russia – Ukraine conflict, COVID-19 pandemic) (The Land Report, 2022). While exact numbers are unavailable, reporting in *Prairie Farmer* – a newspaper covering Illinois agricultural news – estimated that the top 10% of absentee landowners own less than 0.02% of available Illinois farmland (*Prairie Farmer*, 2022). In other words, despite the attractiveness of farmland as an asset, absentee landowners largely trail behind farmers in terms of farmland ownership.

Overall, Illinois' agricultural real estate market participants can be described as mostly farmers who own and manage their operations. However, absentee landowners – like institutions and investors – also play a small role in the buying/selling of Illinois farmland. Farm sizes vary across the state, but over half of Illinois farm operations are relatively small: 1 – 179 acres.

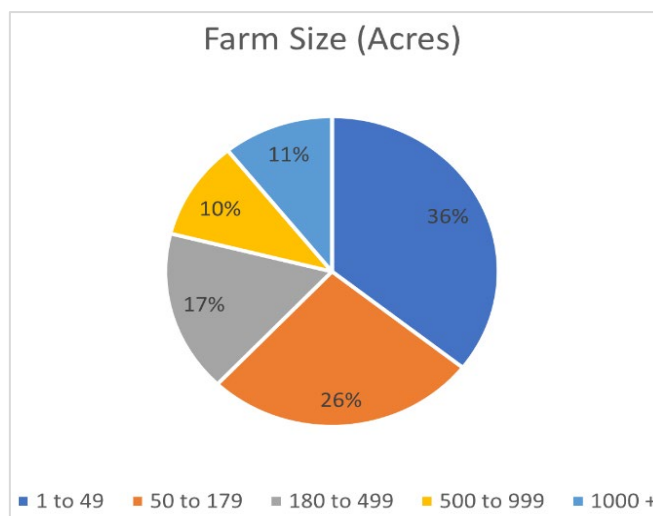


Figure 4: Size of Illinois Farms in Acres. Source: USDA NASS Census of Agriculture, 2017.

Illinois Agricultural Real Estate Market Trends

The USDA-NASS divides farmland into three classes: Farm Real Estate, Cropland and Pastureland (see *Terminology* section). Since 2017, the average values of Farm Real Estate, Cropland and Pastureland have all increased (Figure 5). In this five-year span, the average value of Farm Real Estate grew from \$7160/acre to \$8900/acre – a 24.3% increase; Cropland grew from \$7210/acre to \$8950/acre – a 24.1% increase; and Pastureland grew from \$3240/acre to \$3700/acre – a 14.2% increase. These data suggest that while Cropland and Farm Real Estate are more valuable than Pastureland, all USDA-NASS classes of Illinois farmlands appreciated in value substantially between 2017 – 2022.

This trend is not unique to Illinois. Between 2017 – 2021, the value of farmland in all states of the ‘Corn Belt’ economic region also increased across each USDA-NASS land class. Between 2017 – 2021, the average values of Farm Real Estate increased in Indiana by 7.9%, Iowa by 5.3%, Missouri by 18.6% and Ohio by 9.8% (Table 1).

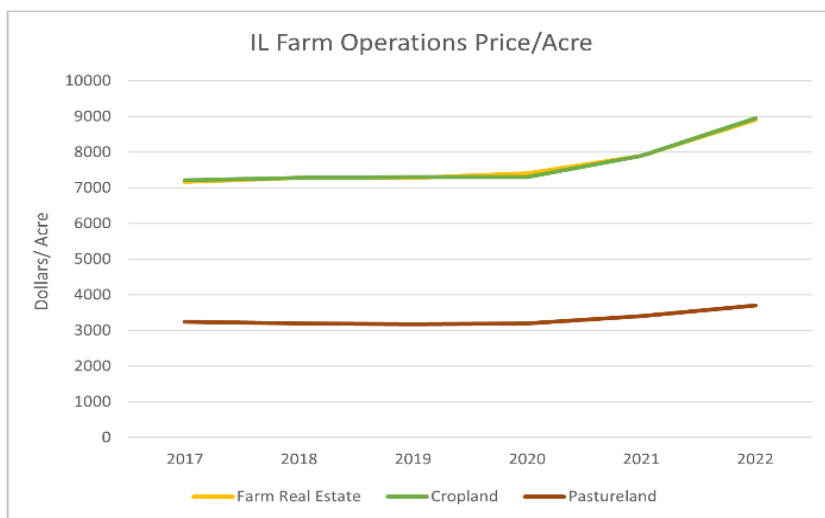


Figure 5: Price (\$/acre) of Farm Real Estate, Cropland and Pastureland between 2017 - 2022. Source: USDA NASS, 2022.

Table 1: Average Farm Real Estate Values (\$/acre) among states in the Corn Belt economic region (2017-2021). Source: USDA NASS, 2021.

State	2017	2018	2019	2020	2021	% change, 2017-2021
	\$ / acre	\$ / acre	\$ / acre	\$ / acre	\$ / acre	
Illinois	7,160	7,280	7,280	7,400	7,900	10.3
Indiana	6,580	6,580	6,580	6,600	7,100	7.9
Iowa	7,350	7,270	7,190	7,070	7,740	5.3
Missouri	3,120	3,380	3,400	3,400	3,700	18.6
Ohio	6,010	6,200	6,290	6,350	6,600	9.8

Between 2017 – 2021, the average values of Cropland increased in Indiana by 7.9%, Iowa by 5.0%, Missouri by 7.0% and Ohio by 10.6% (Table 2).

Table 2: Average Cropland Values (\$/acre) among states in the Corn Belt economic region (2017-2021). Source: USDA NASS, 2021.

State	2017	2018	2019	2020	2021	% change, 2017-2021
	\$ / acre	\$ / acre	\$ / acre	\$ / acre	\$ / acre	
Illinois	7,210	7,280	7,300	7,300	7,900	9.6
Indiana	6,300	6,210	6,210	6,210	6,800	7.9
Iowa	7,440	7,290	7,260	7,170	7,810	5.0
Missouri	3,560	3,490	3,490	3,530	3,810	7.0
Ohio	6,150	6,320	6,400	6,460	6,800	10.6

Finally, between 2017 – 2021, the average values of Pastureland also increased in Indiana by 2.5%, Iowa by 6.0%, Missouri by 18.0% and Ohio by 6.2% (Table 3).

Table 3: Average Pastureland Values (\$/acre) among states in the Corn Belt economic region (2017-2021). Source: USDA NASS, 2021.

State	2017	2018	2019	2020	2021	% change, 2017-2021
	\$ / acre	\$ / acre	\$ / acre	\$ / acre	\$ / acre	
Illinois	3,240	3,200	3,170	3,200	3,400	4.9
Indiana	2,430	2,430	2,450	2,400	2,490	2.5
Iowa	2,850	2,790	2,720	2,690	3,020	6.0
Missouri	1,830	1,920	1,980	2,000	2,160	18.0
Ohio	3,240	3,370	3,350	3,370	3,440	6.2

Together, these data suggest that all three USDA-NASS classes of farmland have appreciated in value in the recent past. Farm Real Estate and Cropland were the most valuable classes of farmlands in Illinois, but Pastureland also experienced significant appreciation. Similar results were also observed in the broader Corn Belt economic region – signifying a regional increase in value across all land classes.

Looking closer at Illinois farmland values, all Prime Agricultural Land Classes (see *Terminology* section) increased between 2017 – 2021 (Figure 6). In this four-year span the average values of: ‘Class A’ land grew by 29.5% (\$10,606/acre to \$13,734/acre), ‘Class B’ land grew by 25.1% (\$8389/acre to \$10,491/acre), ‘Class C’ land grew by 27.2% (\$6086/acre to \$7739/acre) and even ‘Non-Prime’ land grew by 22.4% (\$4604/acre to \$5636/acre) ([USDA NASS, 2021](#)). Here, we see that while ‘Class A’ was shown to be most valuable and experienced the highest appreciation of any Agricultural Land Class, all other Land Classes—including Non-Prime—increased value over four years.

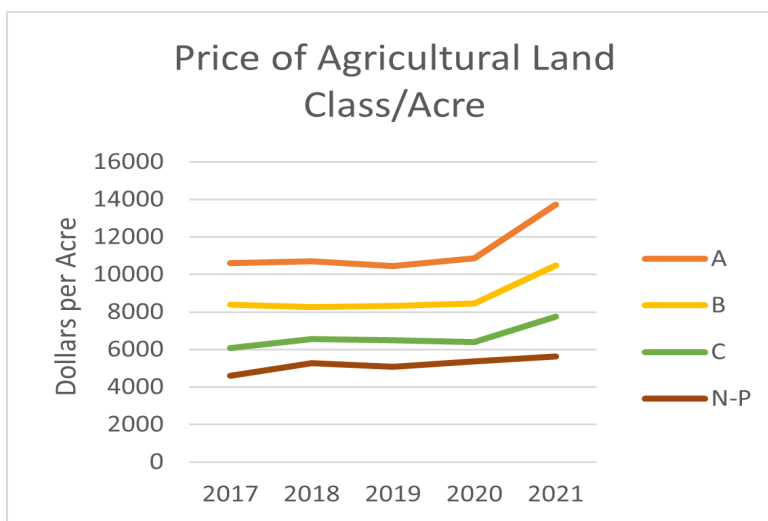


Figure 6: Value of Agricultural Land Classes across all IL regions (Prime and Non-Prime) between 2017 - 2021. Source: USDA NASS, 2021.

Geographic variation of land values across Illinois has also been well documented by the Farm Credit of Illinois’ annual benchmark study of farmland values and the University of Illinois ([Farm Credit Illinois, 2022](#); [Schnitkey et al., 2022](#)). Their findings support the theory that land values are closely tied to soil productivity (PI scores) and, by proxy, cash rent lease prices (Figure 7). This relationship is referred to by agricultural economists as, “dollars per soil quality point” (Seifert & Sherrick, 2016). In other words, differences in land values may correlate with differences in soil PI scores across the state.

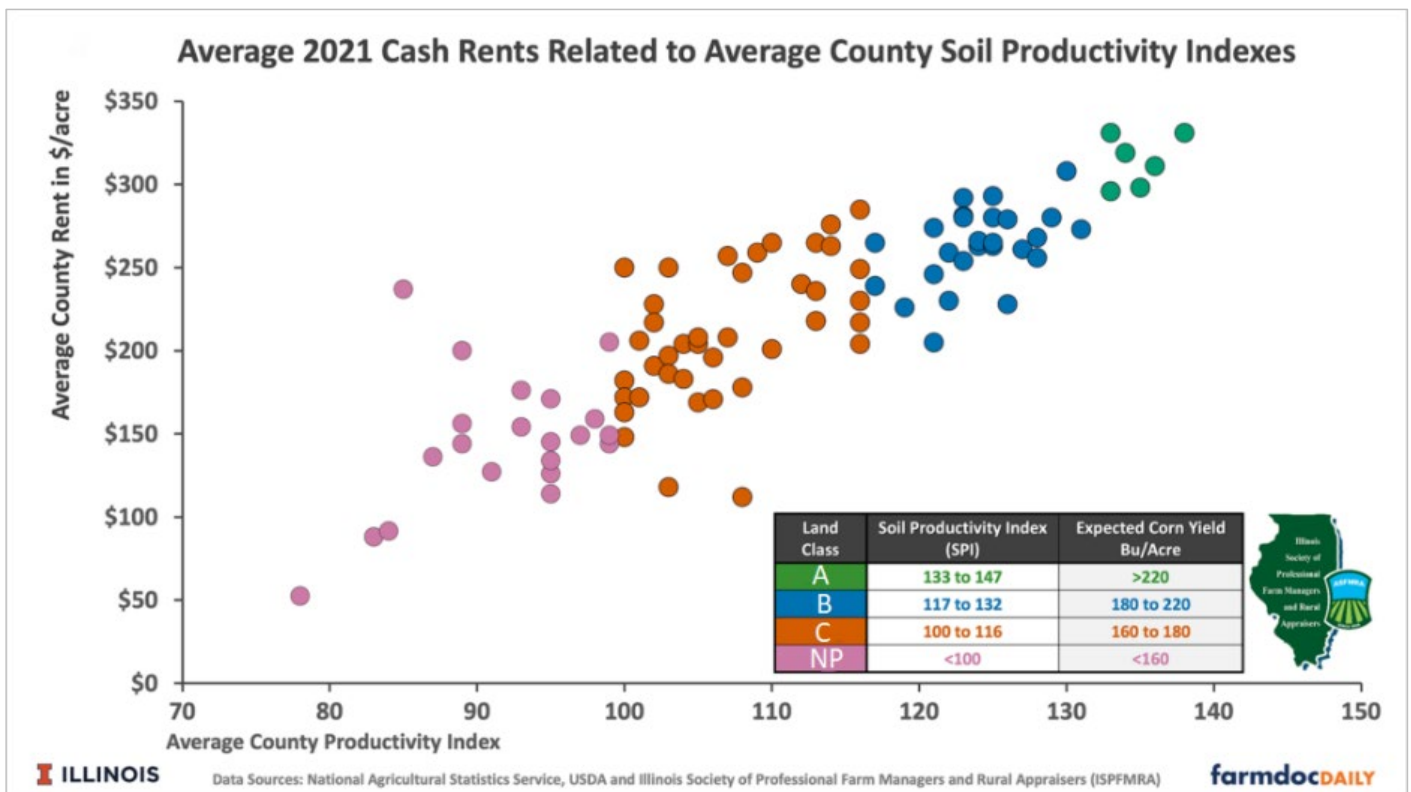


Figure 7: Linear relationship between average Cash Rents and average Soil PI scores across Illinois, 2021.
 Source: Schnitkey et al., 2022.

Indeed, when the value (\$ per acre) of 'Class A' Illinois farmland is compared across all 102 counties (divided into 10 'regions' by ISPFMRA (Figure 8)) between 2017 – 2021, geographic variation is observed (Table 4). Here, we see that the highest land values and greatest appreciation was observed in the North Central, Central and Southwest regions of Illinois.

Table 4: Comparison of Average Values (\$/acre) of 'Class A' Land among Illinois Regions

ISPFMRA Region	Average Value (\$ per acre) of 'Class A' Land		
	2017	2021	Appreciation (%)
1. Northeast	\$9,755	\$12,365	26.8%
2. Northwest	\$10,864	\$13,075	20.4%
3. Western	\$10,328	\$13,429	30.0%
4. North Central	\$10,481	\$15,265	45.6%
5. Eastern	\$10,181	\$13,554	33.1%
6. Central	\$10,606	\$14,386	35.6%
7. West Central	\$11,424	\$13,918	21.9%
8. Southwest	\$11,272	\$15,714	39.4%
9. Southeast*	\$8,348*	\$9,924*	18.9%*
10. Southern*	\$7,825*	\$9,120	16.5%*

*Regions 9 and 10 have very few sales of 'Class A' farmland, so it is difficult to establish a trend in this land class. Therefore, 'Class B' farmland values were compared instead (ISPFMRA, 2018; 2022).

Soil PI is highest in the center and northern sections of Illinois (Figure 9), which supports the “dollars per soil quantity point” theory. However, soil PI is markedly lower in the Southwest portion of the state.



Figure 8: Illinois' 102 counties separated into 10 regions. Source: ISPFMRA, 2022.

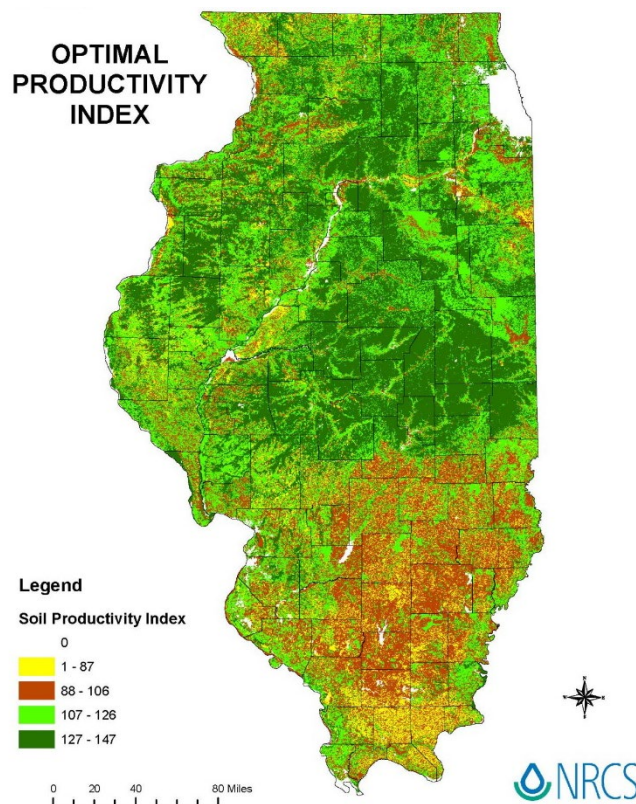


Figure 9: Soil Productivity Index map of Illinois. Source: USDA-NRCS, 2008.

It is possible that, due to its relative scarcity, ‘Class A’ land is more valuable in the Southwest region. However, the fact that all Land Classes have increased in value (Figure 6) suggests that we cannot attribute the rise in land prices to a single indicator – like soil PI. Rather, it is likely that several forces working in tandem have increased land values in Illinois and the Corn Belt Region.

We may also analyze survey data of market participants to further uncover market trends. For example, an annual survey by the [Illinois Society of Professional Farm Managers and Rural Appraisers](#) asks its members to characterize farmland buyers and sellers, what percentage of the purchases required debt financing, the reasons for selling and the most common methods for selling over the previous year. Below is a comparison of these responses between 2017 and 2021 ([Illinois Farm Values and Lease Trends, 2018](#); [Illinois Farm Values and Lease Trends, 2022](#)).

Types of Buyers: Survey data suggests that between 2017 – 2021, Illinois farmers remained the most common buyers of farmland, but by a shrinking majority. Additionally, farmland purchases by absentee landowners (‘non-farming’ Investors and Institutions) increased. Finally, more purchases of farmland required debt financing (Table 5). This survey refers to ‘absentee landowners’ as ‘non-farming investors’ because they are assumed to not become the primary operators of their purchased farmland. In other words, farmland purchased by ‘non-farming investors’ is assumed to be operated by tenant farmers.

Table 5: Comparison of survey responses asking to characterize ‘Types of Buyers’ of Illinois farmland between 2017 – 2022. Source: Illinois Society of Professional Farm Managers and Rural Appraisers, 2018 and 2022.

Types of Buyers: 2017		Types of Buyers: 2021	
Local Farmers	62%	Local Farmers	51%
Relocating Farmers	2%	Relocating Farmers	1%
Non-Local Investors	10%	Non-Local Investors	16%
Local Investors	13%	Local Investors	17%
Institutions	6%	Institutions	10%
Other (recreational)	7%	Other (recreational)	5%
Purchases Required Debt Financing	34%	Purchases Required Debt Financing	58%

If Illinois farmers are the primary owners of farmland (USDA Census of Agriculture, 2017), it follows that they are the primary buyers of farmland (ISPFMRA, 2018; 2022). However, an increasing fraction of buyers were shown to be absentee landowners – such as investors and institutions. These changes may signify a shift in the ownership and management of Illinois farmland, which may have ramifications to on-farm management decisions such as the adoption of SHMS. Increased debt financing on purchases of farmland may be a reaction from buyers to any number of market trends such as inflated prices (Figure 5; Figure 6), more non-farming buyers (who hold less equity in land than farmers (see *Drivers of Farmland Value* section)), or increased interest rates on mortgage loans (Figure 11).

Types of Sellers: Survey data suggests that between 2017 – 2021, the vast majority of farmland was sold via Estate Sales, Farmers sold less farmland and Institutions sold more farmland (Table 6).

Table 6: Comparison of survey responses asking to characterize ‘Types of Sellers’ of Illinois farmland between 2017 – 2022. Source: Illinois Society of Professional Farm Managers and Rural Appraisers, 2018 and 2022.

Types of Sellers: 2017		Types of Sellers: 2021	
Active Farmers	11%	Active Farmers	6%
Retired Farmers	15%	Retired Farmers	12%
Estate Sales	52%	Estate Sales	55%
Institutions	7%	Institutions	13%
Individual Investors	12%	Individual Investors	12%
Other	3%	Other	2%

The dominance of Estate Sales as a means to sell Illinois farmland may reflect the fact that most farmland is owned by individuals or families (84.5%) and most farmers (60.6%) are older than 55 years old (USDA Census of Agriculture, 2017). That is to say, after the death of a farm owner – who was also likely the primary operator – families may rely on Estate Sales to sell the farmland rather than continue as primary operators.

Living farmers – both Active and Retired – sold less farmland in the four-year period. Given the appreciation in value of farmland (Figure 5; Figure 6) and the decreased inventory of farmland (Figure 3), it is likely that farmers are choosing to hold their valuable assets rather than sell at this time.

The growing role of Institutions as sellers of farmland is also worth noting. This may reflect the fact that Institutions have bought more farmland over the four-year period and choose to leverage the value of their acquired assets by selling rather than holding – the opposite scenario observed with farmers.

Reasons for Selling: Survey data suggests that between 2017 – 2021, Settling Estates remained the dominant reason for selling farmland. However, Paying Down Debt and Re-Investing in Agricultural Enterprises became more popular reasons to sell farmland as well (Table 7).

Table 7: Comparison of survey responses asking to characterize sellers’ ‘Reasons for Selling’ Illinois farmland between 2017 – 2022. Source: Illinois Society of Professional Farm Managers and Rural Appraisers, 2018 and 2022.

Reasons for Selling: 2017		Reasons for Selling: 2021	
Settle Estates	53%	Settle Estates	55%
Pay Down Debt	8%	Pay Down Debt	12%
Re-Invest in Agricultural Enterprises	5%	Re-Invest in Agricultural Enterprises	9%
Other	34%	Other	23%

Given that Estate Sales are the most common type of farmland sale (Table 5), it follows that Settling Estates would be the prevalent reason for selling farmland. However, increasing interest in Paying Down Debt and Re-Investing in Agricultural Enterprises may reflect the recognition of the strength of agricultural markets. For example, a farmland owner may choose to sell land at this time due to its inflated returns

across all classes (Figure 5; Figure 6). Even sales of marginal land could help farmers pay down debt. Sellers who choose to ‘Re-Invest in Agricultural Enterprises’ demonstrate confidence that leveraging high returns on sold land can be invested in other areas of the agricultural economy.

Methods of Selling: Survey data suggests that between 2017 – 2021, Public Auctions became markedly more popular as a method of selling farmland. In fact, Public Auctions overtook Private Treaties as the most prevalent method of selling farmland (Table 8).

Table 8: Comparison of survey responses asking to characterize ‘Methods of Selling’ Illinois farmland between 2017 – 2022. Source: Illinois Society of Professional Farm Managers and Rural Appraisers, 2018 and 2022.

Method of Selling: 2017		Method of Selling: 2021	
Private Treaty	49%	Private Treaty	28%
Public Auction	35%	Public Auction	52%
Sealed Bid	5%	Sealed Bid	6%
Multi-Parcel Auction	11%	Multi-Parcel Auction	14%

Greater use of Public Auctions to sell farmland may be the result of an increased prevalence of virtual Public Auctions due to the COVID-19 pandemic. This scenario allows more types of buyers from non-local areas to participate in the agricultural real estate market. Further evidence of this may be the increased number of non-farming investors buying farmland over the same period (Table 4). It is entirely possible that the replacement of Private Treaties by Public Auctions as the primary method of selling farmland is the result of the expansion of virtual auctions due to the COVID-19 pandemic.

To conclude, since 2017, the following trends of Illinois’ agricultural real estate market were observed:

1. Farmland of all classes appreciated in value (\$/acre), with the highest value farmland (class ‘A’) reaching nearly 30% growth. Similar increases were observed among all states of the Corn Belt economic region.
2. Lands with the highest PI scores were most valuable in the North Central, Central and Southwest regions of Illinois.
3. Farmers remain the most common buyers of farmland, but by a shrinking margin. Absentee landowners – such as Investors or Institutions – increasingly bought farmland.
4. Farmland is most commonly sold to settle estates, but sellers are increasingly leveraging high returns on farmland to re-invest in the market or pay down debts.
5. Public Auctions have replaced Private Treaties as the most common method of selling farmland, likely due to the COVID-19 pandemic and increased participation of absentee landowners in the agricultural real estate market.

Market Drivers of Farmland Value

Agricultural economists describe the value of farmland as equal to its ‘discounted future returns’ (Schnitkey & Sherrick, 2011). In this framework, future returns on farmland are represented by commodity prices or

cash rent leases, which are discounted by interest rates. In other words, farmland is more valuable when returns on commodities and cash rent leases are high and interest rates are low. Conversely, higher interest rates lower farm income and farmland prices overall.

Illinois' two principal agricultural commodities are corn and soybeans (see *Illinois Agricultural Economy Overview* section). Between 2017 – 2021, commodity prices (\$ per bushel) of corn and soybeans increased substantially in Illinois (Figure 10). Similarly, between 2017 – 2022, average prices for cash rent leases (\$ per acre) in Illinois grew across all 'Land Classes' (Figure 11). Given that land is required to produce commodities like corn and soybeans, it follows that commodity markets drive cash rent lease prices (Burt, 1986).

Together, these results suggest a robust market for Illinois' two principal commodities and their means of production. It stands to reason that strong returns on commodity prices and subsequent cash rent lease prices have increased gross farm income, thereby contributing to the observed increase in value of farmland since 2017 (Figure 5; Figure 6; Table 4).

Interest rates, on the other hand, represent a discounting factor to the farmland value. According to the U.S. Federal Reserve, interest rates for fixed rate mortgage loans increased between 2017 – 2022 (Figure 12). A 30-year fixed interest loan grew from 4.2% to 6.49% and a 15-year fixed interest loan grew from 3.44% to 5.76% (Federal Reserve, 2022; Federal Reserve Bank of St. Louis, 2022).

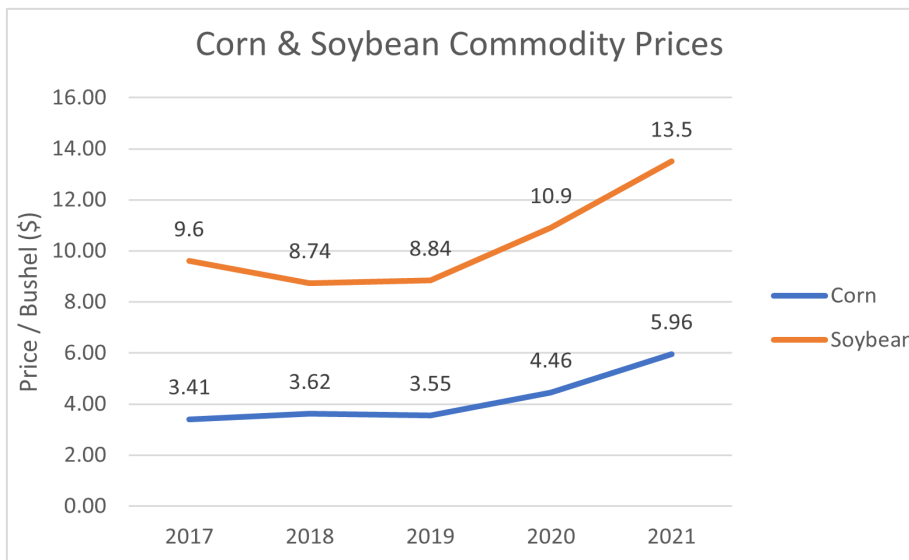


Figure 10: Changes to Corn and Soybean Commodity Prices (\$/BU) between 2017 – 2021. Source: USDA NASS, 2022.

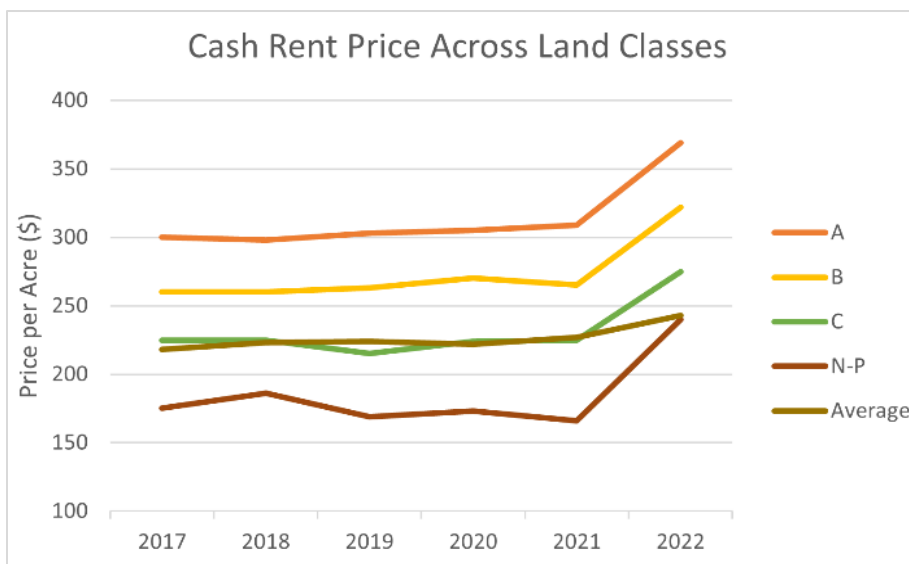


Figure 11: Cash rent lease prices among all Land Classes between 2017 – 2021. Source: USDA NASS, 2022.

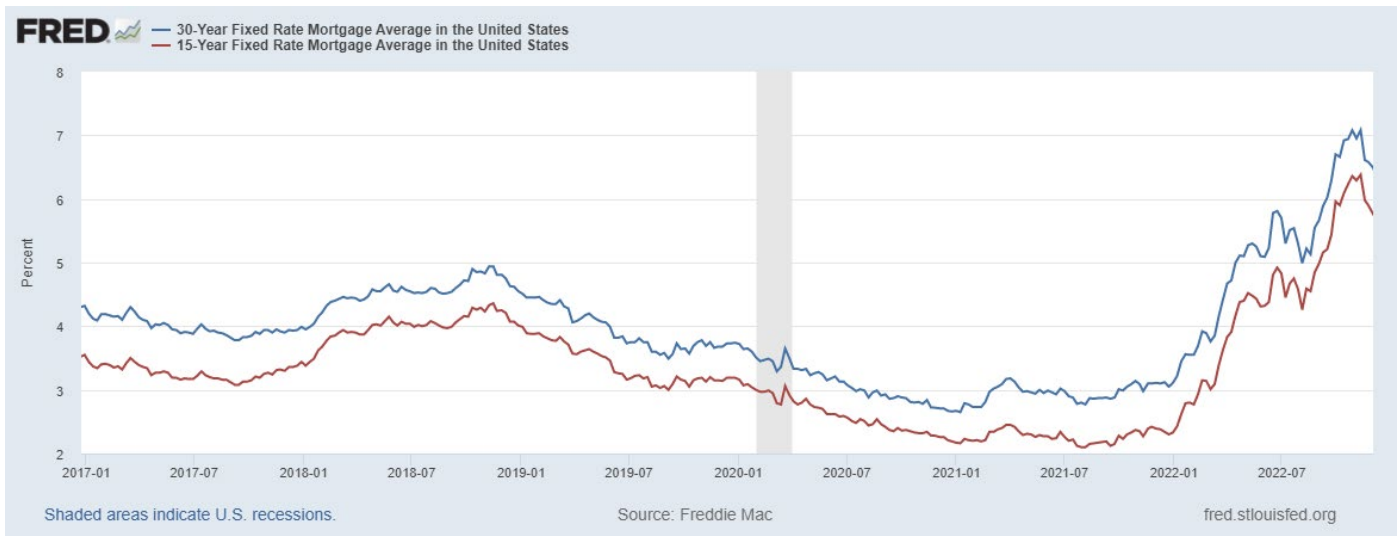


Figure 12: Average Interest Rates for 15- and 30-Year Fixed Rate Mortgages in the US between 2017 – 2022. Source: Federal Reserve Bank of St. Louis, Economic Research, 2022.

Theoretically, increased interest rates on mortgage loans should lower farmland value by discouraging the number of purchases/sales of agricultural real estate. However, as of 2022, no substantial indicators of a slowing agricultural real estate market have emerged (Schnitkey et al., 2022). Several reasons for this phenomenon may be:

1. Returns (commodity prices and cash rent leases) continue to outperform discount factors (interest rates).
2. Farmers represent the majority of farmland buyers (Table 5). The majority of Illinois farms are privately owned. Therefore, farmers – who have equity in owned land – may not rely on debt financing for land purchases and instead pay cash. In other words, many purchases of farmland may be uniquely unaffected by higher interest rates, at least in the short term.
3. Land is perceived to be a stable asset for investment during times of political/societal turbulence. It follows that, despite increasing interest rates, investors may be using farmland as a hedge against inflation and other economic disturbances. The increased prevalence of absentee landowners buying farmland lends credence to this theory.

CONCLUSIONS

Delta has confirmed that the value of farmland (\$/acre) is equal to its discounted returns (Schnitkey & Sherrick, 2011). In other words, farmland is more valuable when income streams (e.g., commodity prices, land leases prices) outweigh discount factors (e.g., interest rates on mortgage loans, operating costs). Since 2017, agricultural commodity markets have consistently delivered high returns on Illinois' two principal commodities, corn and soybeans. In turn, landowners have enjoyed greater returns on cash rent leases from their tenant farmers seeking the means of commodity production. While mortgage loan interest rates have steadily grown since 2017, the value of farmland continues to increase with little indication of slowing. These findings suggest current market conditions (e.g., income streams outperforming discount factors) may have promoted the rise in farmland values to record-high prices.

Since 2017, the value of Illinois farmland has increased across all regions, land classifications, land uses and soil PI scores. Given the profitability of commodity sales and cash rent leases, it follows that the most valuable type of farmland in Illinois has been shown to be 'Class A' (soil PI scores of 133-147) Cropland (USDA-NASS, 2022). While farmland value has increased across all of Illinois, the highest prices and greatest appreciation (% change over time) were observed in the North Central, Central and Southwest regions (Farm Credit Illinois, 2022; Schnitkey et al., 2022). Regional variation of farmland values in Illinois have been shown to be correlated with soil PI scores. In other words, regions with higher land values may be paying a premium on soil PI scores (Seifert & Sherrick, 2016).

We also observed agricultural real estate market participants as well as the methods and motivations for buying and selling farmland during this time. Farmers were shown to be the primary buyers and sellers of Illinois farmland. Farmers typically buy local farmland to consolidate acreage – further evidenced by census data which suggests the number of Illinois farms are decreasing but farm acreage is increasing. Farmland is mostly sold to settle estates after death. Farmers were also shown to leverage the value of their land to re-invest in the agricultural market or pay down debts. However, a growing trend was observed of absentee landowners (e.g., non-local investors, institutions) buying and selling farmland. This small, but perceptible shift in market participants may have been catalyzed, in part, by public auctions (virtual sales) replacing private treaties as the primary method of selling farmland and the perception of farmland as a stable investment during times of macro-economic uncertainty (e.g., COVID-19 pandemic, inflation) and geopolitical strife (Russian invasion of Ukraine). The use of debt financing to purchase farmland has also increased – perhaps reflecting the growing number of absentee landowners who, unlike many farmers, cannot leverage generations of equity in land for cash.

Taken as a whole, these results suggest the fundamentals of agricultural economics remain steady in Illinois: agricultural real estate markets are closely tied to agricultural commodities markets. In other words, the most profitable farmland is the most valuable. Appraisers rely on institutionalized metrics, such as the Soil PI scores, to assess the potential profitability of Illinois farmland. However, as market participation diversifies beyond farmers, aspects of the agricultural real estate market may also change. For example, the frequency of farmland purchases and sales may increase as absentee landowners grow their share of Illinois farmland. Census data suggests the majority of Illinois farms are owned and operated by individuals or families until death, but absentee landowners may not consider farmland a generational asset. Rather, absentee landowners may be motivated to sell farmland based on market conditions. A greater frequency of farmland purchases and sales – or the perception that farmland is a profitable short-term investment – may promote speculation, excessive lending and risk taking.

Changes in ownership may change management. We see an opportunity to promote the adoption of SHMS if Soil Health can be linked to Land Value. In an attempt to differentiate their farmland from conventionally managed neighbors, absentee landowners may adopt SHMS or enroll acreage in federal cost-share programs like the USDA's Conservation Reserve Program. On the other hand, farmers seeking to ensure

the economic and environmental sustainability of their generational assets may be prime candidates to adopt SHMS.

Farmers – the principal buyers, sellers and managers of the vast majority of Illinois farmland – are crucial partners in Delta’s efforts to link Soil Health to Land Value. At present, there is little financial incentive for farmers to adopt SHMS when much of Illinois enjoys high soil PI scores and lucrative returns on commodities. However, Delta is actively working to address this with appraisers across four states (IL, IN, IA, MI) across multiple projects—as we anticipate that if the adoption of SHMS can be incentivized through novel appraisal methodologies, farmers can then be rewarded for responsible stewardship that will pay dividends for future generations. Further, we are exploring how SHMS data will complement PI when determining land value during the appraisal process so that stewardship practices have a reasonably empirical monetary value that informs real estate transactions.

What is Next: Our Pilot Program Market

Both MLRA 110 and MLRA 108 have been selected as regions to pilot Delta Institute and project partners’ novel Soil Health Land Valuation methodologies. Both MLRA’s encompass Compeer Financials’ appraisal territory and have highly valued farmland. Below is an overview of each MLRA’s land use, soils and ag real estate market.

MLRA 110: Northern Illinois and Indiana Heavy Till Plain Overview

MLRA 110 covers northeast Illinois (82%), southeast Wisconsin (10%), and southeast Indiana (8%). It makes up about 7,770 square miles or approximately 4.9 million acres (Figure 13) (USDA-NRCS, Agriculture Handbook 296, 2022).

Prior to Euro-American settlement, the majority of MLRA 110 supported tallgrass prairies and savannas. The dominant soils are productive Mollisols and Alfisols, which developed under grasslands and forests, respectively. Mollisols and Alfisols are ideal agricultural soils due to their depth and drainage (USDA-NRCS, Agriculture Handbook 296, 2022).

Most of MLRA 110’s cropland is used for corn and soybean production (Figure 14). Because of this, MLRA 110’s major resource concerns are soil erosion, soil health, flooding, surface water quality, and protection and restoration of wetland wildlife habitat. Here, SHMS on cropland generally include conservation tillage systems (such as mulch-till, no-till, and strip-till), cover crops, crop rotations, and nutrient and pest management (USDA-NRCS, Agriculture Handbook 296, 2022).

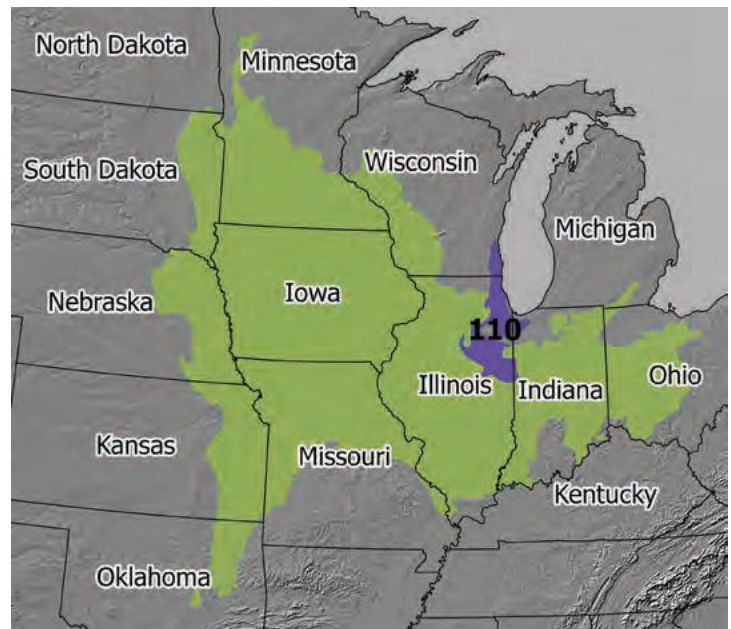


Figure 13: Location of MLRA 110, which covers 2,012,400 hectares (4,972,600 acres), within Region M. Source: USDA NRCS, 2022.

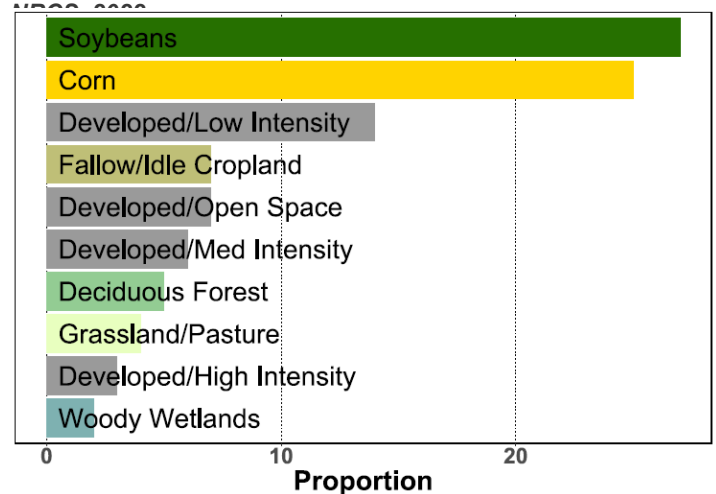


Figure 14: Relative proportions (percentages) of land use in MLRA 110. Source: USDA NRCS, 2022.

MLRA 110 Agricultural Real Estate Market

The 14 Illinois counties within MLRA 110 are Champaign, Cook, DuPage, Ford, Grundy, Kane, Kankakee, Kendall, Lake, LaSalle, Livingston, McLean, Vermillion and Will (Table 9).

Table 9: Illinois counties within MLRA 110 and their Average Price/Acre and Average Soil PI scores. Source: AcreValue, 2022.

IL County in MLRA 110	Average Price/Acre (\$)	Average Soil Productivity Index Score
Champaign	\$10,617	136
Cook	\$97,075	100
DuPage	\$193,479.00	113
Ford	\$7,411.00	124
Grundy	\$8,352.00	121
Kane	\$10,953.00	124
Kankakee	\$7,098.00	116
Kendall	\$9,797.00	129
Lake	\$10,067.00	98
LaSalle	\$8,390.00	128
Livingston	\$7,044.00	123
McLean	\$10,284	133
Vermillion	\$7,835.00	125
Will	\$9,105.00	117
MLRA 110 Average	\$28,293	120.5
MLRA 110 Average w/out Cook and DuPage	\$8,913	

The average price per acre of farmland in MLRA 110 is \$28,293. By far, the most expensive farmland in MLRA 110 is in Cook and DuPage counties, likely the result of proximity to Chicago or a low number of sales in 2022. If Cook and DuPage counties are removed from the list, the average price per acre of farmland in MLRA 110 becomes \$8,913 – higher than the state average. The average Soil PI score for the counties of MLRA 110 is 120.5 - higher than the state average. In other words, MLRA 110 has higher quality agricultural soils and more valuable farmland than average for the state of Illinois.

MLRA 108: Illinois and Iowa Deep Loess and Drift, Overview

MLRA 108 spans four states – Illinois (58 percent), Iowa (38 percent), Missouri (3 percent) and Indiana (1 percent) – comprising about 32,967 square miles or 21 million acres (USDA-NRCS, Agriculture Handbook 296, 2022).

MLRA 108’s land history and soil profile are similar to that of MLRA 110: prairies and forest systems dominated prior to Euro-American settlement, which resulted in highly productive, deep and well-draining Mollisols and Alfisols (USDA-NRCS, Agriculture Handbook 296, 2022).

Most of MLRA 108’s land area is used to produce corn and soybeans (Figure 16). As such, MLRA 108’s major resource concerns are wind erosion, soil erosion, soil health, and water quality. Conservation practices on cropland generally include conservation tillage systems (especially no-till, strip-till, and mulch-till), cover crops, manure management as well as nutrient and pest management. (USDA-NRCS, Agriculture Handbook 296, 2022).

MLRA 108 Agricultural Real Estate Market (Illinois)

The 47 Illinois counties that comprise MLRA 108 are Bureau, Carroll, Cass, Champaign, Christian, Coles, DeKalb, DeWitt, Douglas, Edgar, Fulton, Henderson, Grundy, Henry, Kane, Kendall, Knox, LaSalle, Lee, Livingston, Logan, Macon, Macoupin, Marshall, Mason, McDonough, McLean, Menard, Mercer, Montgomery, Morgan, Moultrie, Ogle, Peoria, Piatt, Putnam, Rock Island, Sangamon, Shelby, Stark, Stephenson, Tazwell, Vermillion, Warren, Whiteside, Winnebago, Woodford (Table 10).

Table 10: Illinois counties within MLRA 108 and their Average Price/Acre and Average Soil PI scores. Source: AcreValue, 2022.

IL County in MLRA 108	Average Price/Acre	Average Soil Productivity Index Score
Bureau	\$8,193	124
Carroll	\$6,906.00	113
Cass	\$6,666.00	103
Champaign	\$10,617	136

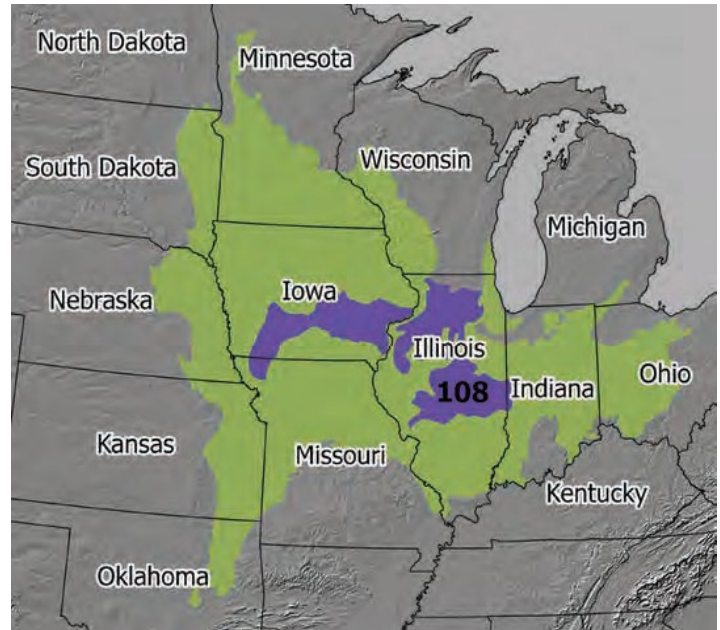


Figure 15: Location of MLRA 108, which covers 8,538,900 hectares (21,099,900 acres), within Region M. Source: USDA NRCS, 2022.

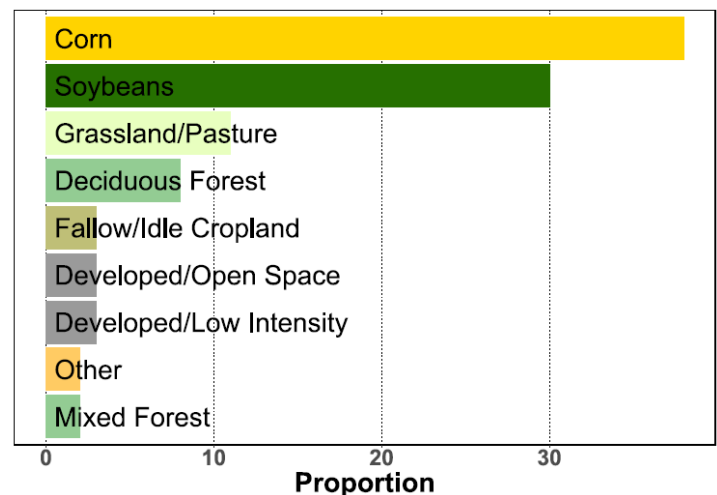


Figure 16: Relative proportions (percentages) of land use in MLRA 108. Source: USDA NRCS, 2022.

Christian	\$8,211.00	130
Coles	\$8,636	125
DeKalb	\$9,609	135
DeWitt	\$9,588	133
Douglas	\$9,922	133
Edgar	\$9,033	129
Fulton	\$6,398.00	107
Henderson	\$6,452.00	111
Grundy	\$9,010	121
Henry	\$7,450.00	120
Kane	\$11,432	124
Kendall	\$10,119	129
Knox	\$7,148.00	117
LaSalle	\$9,040	128
Lee	\$8,073	125
Livingston	\$7,549	123
Logan	\$8,918	135
Macon	\$10,855	135
Macoupin	\$7,056.00	110
Marshall	\$8,808	122
Mason	\$6,299.00	105
McDonough	\$7,263.00	123
McLean	\$10,284	133
Menard	\$8,130.00	125
Mercer	\$6,835.00	113
Montgomery	\$6,724.00	108
Morgan	\$7,823.00	122
Moultrie	\$10,635	130
Ogle	\$7,911.00	122
Peoria	\$8,734.00	110
Piatt	\$10,772	138
Putnam	\$9,946	118

Rock Island	\$7,527.00	108
Sangamon	\$9,650.00	131
Shelby	\$7,506	113
Stark	\$7,690.00	128
Stephenson	\$6,902.00	119
Tazwell	\$9,201	122
Vermillion	\$8,322	125
Warren	\$7,563.00	128
Whiteside	\$6,910.00	114
Winnebago	\$7,800.00	116
Woodford	\$10,279	127
MLRA 108 Average	\$8,434.00	122.3

The average price per acre of farmland in MLRA 108 is approximately \$8,434.00 – slightly higher than the state average, less than MLRA 110 (excluding Cook and DuPage counties). The average soil PI score for MLRA 108 is 122.3 – higher than the state average and MLRA 110. These results suggest that, on average, the counties of MLRA 108 have slightly less valuable farmland than MLRA 110, but higher than the state average. The counties of MLRA 108, on average, have greater soil PI scores than both MLRA 110 and the state. One explanation for this may be that MLRA 108 contains over three times the number of counties than MLRA 110 with greater geographic variation. Soil PI scores vary across the state (figure 9) and these variations may account for the range of prices/acre observed in MLRA 108.

Taken as whole, we see that the counties of both MLRA's, on average, have higher valued land and higher soil PI scores than the state average. The shared land history of both MLRA's provided productive Mollisols and Alfisols on which corn and soybean production dominate croplands. Because of this, both MLRA's have similar major resource concerns such as soil erosion and soil health. For this reason, farmers in both MLRA 110 and 108 are uniquely positioned as pilot participants to attempt to incorporate measurements of Soil Health or the adoption of SHMS into the value of farmland. If novel methodology linking Soil Health to land value can be successfully piloted in these areas of highly valued farmland, the methodology may have a better chance at being applied at scale across Illinois.

Delta will update this document as needed/relevant based on lived experience, market conditions, Soil Health terminology/methodology, and/or NRCS MLRA updates. We look forward to ongoing efforts to explore the interconnectivity between Soil Health and relevant land valuation processes in the years ahead.

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APPENDIX: ALL ILLINOIS COUNTIES FARMLAND MARKET DATA, 2022.

Average Price per Acre, Average Soil Productivity Index scores and ISPFMRA Regions of all Illinois counties as of 2022. Source: AcreValue.

Illinois County	Average Price per Acre (\$)	Average Productivity Index (PI) Score	ISPFMRA Region
Adams	\$6,262.00	108	3
Alexander	\$5,083.00	86	10
Bond	\$5,689.00	102	8
Boone	\$8,521.00	124	1
Brown	\$5,751.00	99	3
Bureau	\$7,541.00	124	2
Calhoun	\$5,946.00	86	7
Carroll	\$6,906.00	113	2
Cass	\$6,666.00	103	7
Champaign	\$9,931.00	136	5
Christian	\$8,211.00	130	6
Clark	\$6,062.00	99	9
Clay	\$5,376.00	98	9
Clinton	\$6,819.00	106	8
Coles	\$7,963.00	125	5
Cook	\$97,075.00	100	1
Crawford	\$6,145.00	103	9
Cumberland	\$6,087.00	100	9
DeKalb	\$8,927.00	135	1
DeWitt	\$9,152.00	133	6
Douglas	\$9,081.00	133	5
DuPage	\$193,479.00	113	1
Edgar	\$8,309.00	129	5
Edwards	\$5,643.00	100	9
Effingham	\$6,805.00	100	9
Fayette	\$5,405.00	101	9
Ford	\$7,411.00	124	5
Franklin	\$5,525.00	92	10
Fulton	\$6,398.00	107	3
Gallatin	\$6,540.00	104	10
Greene	\$6,147.00	115	7
Grundy	\$8,352.00	121	1
Hamilton	\$5,723.00	95	10
Hancock	\$6,869.00	116	3
Hardin	\$4,799.00	77	10
Henderson	\$6,452.00	111	10
Henry	\$7,450.00	120	2
Iroquois	\$6,694.00	119	5
Jackson	\$5,756.00	91	10
Jasper	\$6,030.00	101	9
Jefferson	\$5,333.00	92	10
Jersey	\$6,852.00	103	7

Jo Daviess	\$6,224.00	94	2
Johnson	\$4,839.00	79	10
Kane	\$10,953.00	124	1
Kankakee	\$7,098.00	116	1
Kendall	\$9,797.00	129	1
Knox	\$7,148.00	117	3
Lake	\$10,067.00	98	1
LaSalle	\$8,390.00	128	1
Lawrence	\$5,344.00	105	9
Lee	\$7,308.00	125	2
Livingston	\$7,044.00	123	4
Logan	\$8,081.00	135	6
Macon	\$9,991.00	135	6
Macoupin	\$7,056.00	110	7
Madison	\$8,036.00	105	8
Marion	\$5,623.00	96	9
Marshall	\$8,037.00	122	4
Mason	\$6,299.00	105	4
Massac	\$5,367.00	95	10
McDonough	\$7,263.00	123	3
McHenry	\$8,632.00	115	1
McLean	\$9,593.00	133	4
Menard	\$8,130.00	125	7
Mercer	\$6,835.00	113	2
Monroe	\$7,898.00	91	8
Montgomery	\$6,724.00	108	7
Morgan	\$7,823.00	122	7
Moultrie	\$9,821.00	130	6
Ogle	\$7,911.00	122	2
Peoria	\$8,734.00	110	3
Perry	\$5,530.00	91	10
Piatt	\$9,937.00	138	6
Pike	\$5,812.00	105	3
Pope	\$4,876.00	85	10
Pulaski	\$5,359.00	98	10
Putnam	\$9,138.00	118	4
Randolph	\$5,602.00	96	8
Richland	\$5,780.00	99	9
Rock Island	\$7,527.00	108	2
Saline	\$5,867.00	90	10
Sangamon	\$9,650.00	131	7
Schuyler	\$6,089.00	102	3
Scott	\$6,199.00	111	7
Shelby	\$7,036.00	113	6
St. Clair	\$7,908.00	100	8
Stark	\$7,690.00	128	3
Stephenson	\$6,902.00	119	2
Tazewell	\$8,580.00	122	4
Union	\$5,629.00	93	10
Vermilion	\$7,835.00	125	5
Wabash	\$6,322.00	105	9

Warren	\$7,563.00	128	3
Washington	\$6,437.00	99	8
Wayne	\$5,394.00	97	9
White	\$6,373.00	100	10
Whiteside	\$6,910.00	114	2
Will	\$9,105.00	117	1
Williamson	\$6,023.00	83	10
Winnebago	\$7,800.00	116	2
Woodford	\$9,530.00	127	4
Illinois (State)	\$9,840.00	110.4	
IL w/out Cook and DuPage	\$7,131		