

# Non-Operating Landowners and Conservation on Rented Farmland

LESSONS LEARNED FROM A YEAR OF EXPLORATION



*Non-operating landowners control 41 percent of farmland in the U.S. © Carlton Ward, Jr.*

This report represents the findings of over 12 months of research on non-operating landowners, or NOLs, and the opportunities and barriers to improve conservation outcomes on rented farmland.

Non-operating landowners control 41% of U.S. farmland, 62% of Midwest farmland and in certain counties non-operating landownership accounts for over 80% of county farmland acres.<sup>1</sup> Coincidentally, these regions of high non-operating landownership are among the highest contributors to nitrate loading to the Gulf of Mexico. Achieving watershed and landscape conservation objectives, such as State Nutrient Reduction Strategies and the 40% reduced loading of nitrogen to the Gulf of Mexico, requires improved conservation outcomes on rented farmland.<sup>2</sup> Recognition of the need to better understand non-operating landowners has been increasing in recent years, yet they remain an understudied stakeholder group.

This report represents a suite of work to better understand non-operating landowners and the barriers they and their farmers face in aligning management objectives, as well as potential opportunities to improve soil health outcomes on rented farmland. This work included a series of state-focused workshops with advisors to non-operating landowners, a demographic and motives survey, a conservation messaging and recruitment trial project, tax analysis, and a legal analysis of trust ownership. An overview of these streams of work, promising opportunities identified, and lessons learned is reviewed below.

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## About this report

This report was authored by Randy Dell, strategy manager for the North America Agriculture Program and agriculture director for The Nature Conservancy in Michigan.

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The mission of The Nature Conservancy is to conserve the land and waters on which all life depends. Visit us at [nature.org](https://www.nature.org).

<sup>1</sup> Bigelow et al. 2016.

<sup>2</sup> Reddy, Harlan et al. In preparation., 2018

## ADVISOR WORKSHOPS: GENERATING IDEAS AND BUILDING NETWORKS

The Nature Conservancy (TNC) held a series of interactive advisor workshops to 1) identify barriers for using conservation practices on rented land, 2) understand who NOLs are, 3) identify the legal and financial systems influencing land rental decisions, and 4) learn from the stakeholders already working with NOLs. The workshops—held in Champaign, IL, Des Moines, IA and Indianapolis, IN—followed a similar format and recruited stakeholders and NOLs advisors with similar roles across the three states. Each workshop had a state-specific focus given variances in laws, norms, and partnerships across the three states. Workshop participants included agricultural attorneys, agricultural economists, farm management and real estate companies, rural appraisers, farm and commodity groups, extension staff, conservation professionals, and agriculture/landowner technology companies.

In preparation for each workshop, a report was prepared on relevant agriculture and landownership laws for Illinois, Indiana and Iowa. The objective of the workshops was to create in-state networks to pilot and deploy strategies, build common understanding among diverse groups that don't regularly interact, and interactively identify and evaluate promising strategies. The one-day workshops were professionally facilitated with the first half of the day featuring brief presentations to develop common understanding among participants on soil health, agricultural leasing laws, land valuation approaches, and why non-operating landowners are important participants in conservation. The second portion of the workshops focused on interactive breakout sessions to brainstorm and prioritize potential solutions. The workshops were successful in identifying promising solutions, including the subsequent pursuit of other bodies of work described in this report, as well as rapidly evaluating once-promising strategy lines that were deemed infeasible.

Overall, there is broad enthusiasm across professions and regions to engage on this issue, and recognition that new approaches and partnerships are needed. Across workshops and states, several common themes emerged for strategies needed, although their emphasis varied between workshops. These themes included:

- Need for a simple standardized soil health metric
- Need for data to make economic case for soil health, to build marketing, leases, incentives
- Need to better understand NOL demographic segments
- Opportunity with estate planning and trusts, and relevant attorney education
- Making a link between land values and soil health is difficult with static soil indexes/values
- Strong relationships and lack of communication between NOLs and their farmer operators prevent longer leases, not legal constraints.
- Marketing strategy for “What is soil health?” tailored to different NOL groups
- Consistent soil health communication for all sectors
- Need for better and more flexible cost-share (especially to cover the risk of trying soil health practices) and technical assistance



*As stewards of vast swaths of land, farmers are important allies in conservation. © David Sanger*



## DEMOGRAPHIC SURVEY

In recognition of the limited understanding of who NOLs are, their motives for owning and managing land, their relationship with their farmer and interest in conservation, American Farmland Trust (AFT) has been working with Dr. Peggy Petrzelka at Utah State University over the last several years to develop and administer a survey to provide insights into these questions. The Nature Conservancy supported the expedited implementation of this survey in Illinois, Indiana and Iowa.

As of October 2018, the Iowa results are final, with additional sampling being performed in Illinois and Indiana to achieve a desired 300 completed surveys per state. The overall survey project is mid-implementation, with Dr. Petrzelka still administering the survey in additional states, compiling and analyzing already collected surveys, and drafting manuscripts. Results from the Iowa survey are discussed in greater detail below. A summary of the preliminary Illinois and Indiana data is presented along with the Iowa data in Figure 1. These results may be subject to change with additional data.



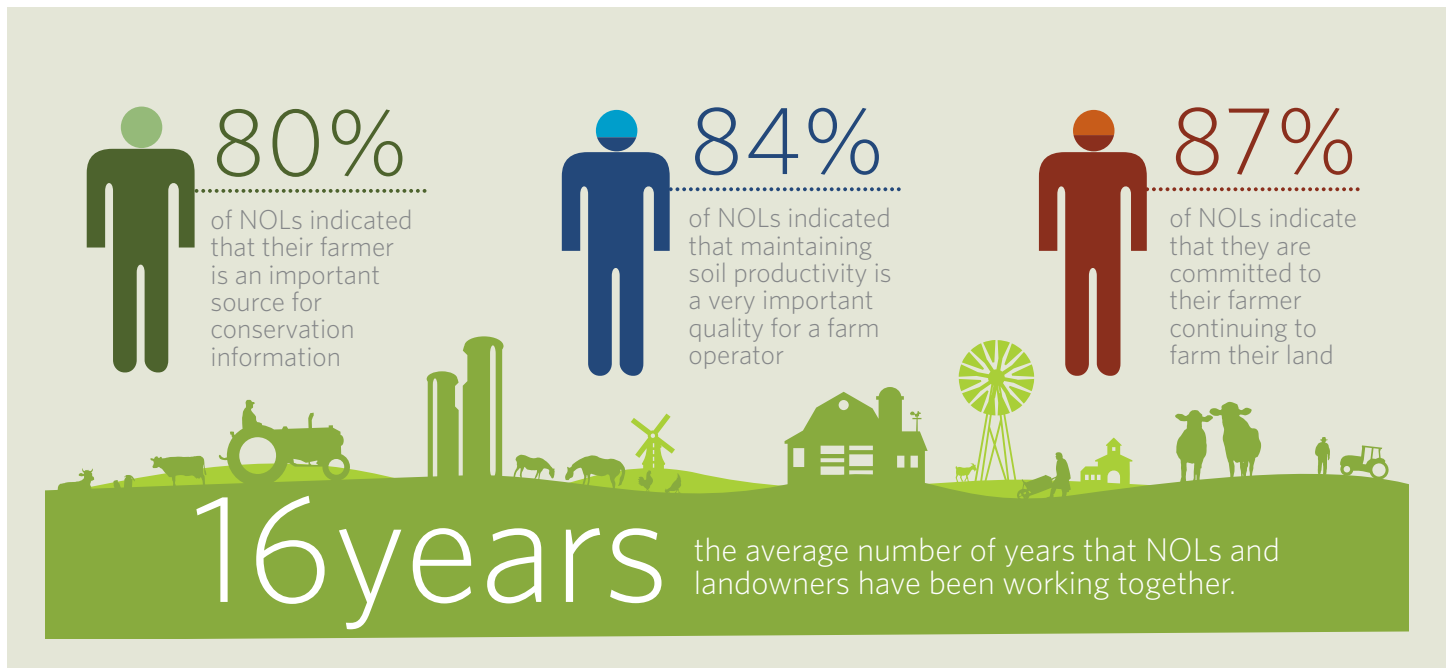
At 40.4 million acres, Illinois, Indiana and Iowa have the highest proportion of rented farmland and the highest levels of nitrogen loss in the 31-state Mississippi River Basin, making the adoption of conservation practices—like the no-till system pictured here—vitaly important. © USDA-NRCS

**Fig. 1: Preliminary Demographic Survey Results**

	IA	IL*	IN*
Average Age	73	70	71
Retired	65%	67%	67%
Live on Farmland Parcel	43%	30%	52%
Male	51%	58%	57%
Own Land by Selves	66%	62%	68%
Average farmland acres owned	248	221	183
Average farmland acres rented	207	191	128
Lease characteristics			
Written	52%	38%	29%
Verbal	47%	62%	70%
Annual	84%	72%	73%
Cash rent (fixed cash and flex cash)	71%	31%	43%
Crop share	24%	65%	53%
Experience with farming			
I/we have operated a farm	56%	29%	38%
I/we have helped our parents farm	24%	31%	34%
I/we helped another relative farm	7%	6%	4%
I/we have worked on a non-relative's farm	3%	6%	7%
Neither I nor my spouse (if any) have farmed	10%	28%	17%
Net farm income in 2017			
Less than \$25,000	38%	61%	69%
\$25,001- \$75,000	42%	28%	22%
More than \$225,000	1%	2%	2%

\*Data from Illinois and Indiana is preliminary.

Fig. 2



An overwhelming majority of non-operating landowners view the farmer as a trusted source of conservation information, according to a study by the American Farmland Trust.

**Farmer Relationships:** The mean number of years that a NOL has been leasing with their farmer is 16 years. Nearly 80% of farm operators are either a family member or a friend of the family. The clear majority of NOLs, 87%, indicated that they are committed to the continuation of their operator farming their land. Annually, NOLs report communicating with their farmer an average of 14 times, and specifically communicating about conservation issues an average of 5 times. NOLs indicated that their operator was primarily responsible for making decisions about crop inputs (82%), crop rotations (78%), and tillage practices (74%), although they were more likely to make conservation decisions jointly (46%). As a source of conservation information, the operator is the most trusted, with 80% of NOLs indicating their operator as either important or a very important source of conservation information (See Fig. 2). The second most important source of conservation information was the NRCS, with 67% of NOLs indicating they are an important or very important source. A majority of NOLs, 94%, agree or strongly agree that their farmer makes good conservation decisions. NOLs widely indicate that they are comfortable asking their farmer to utilize certain conservation practices (84% agree/strongly agree) and would be willing to extend lease terms to accommodate conservation practices (81% agree/strongly agree).

**Financial Motivations:** Financially, 78% of Iowa NOL respondents indicated that their primary financial motivation for owning their rented farmland is for immediate income, about evenly split as primary and non-primary source of household income. Approximately 30% indicated their motivation was for long-term real-estate investment purposes, and approximately 20% indicated as an estate planning tool. Respondents could pick more than one category, as they were likely holding land for multiple purposes.

**Conservation Attitudes:** NOLs broadly value conservation and soil health, with 96% indicating that they agree or strongly agree that they consider soil quality when making land management decisions. Ability to avoid erosion, maintain soil productivity, and avoid contaminating waterways were also among the most strongly preferred attributes NOLs valued in a farm operator, ranking above amount of rent a farmer will pay and whether they liked the farmer individually. NOLs did not indicate that they perceive any significant barriers to using additional conservation practices. NOLs feel informed about farming and conservation practices, their ability to access government programs, and they do not perceive social barriers such as upsetting family members, neighbors or the farmer by discussing conservation. However, approximately 50% of respondents indicated that they 'Agree' or 'Strongly Agree' that enough soil and water conservation practices have already been implemented on their rented property. Perhaps from this perceived lack of need, NOL respondents expressed limited interest in various conservation interventions. Around 60% were strongly uninterested in joining NOL peer learning groups or working with a private business dedicated to NOL conservation needs, while a slight majority (55%) expressed an interest in working with a government agency. The most preferred NOL conservation service options included NOL-specific resources (69% with some level of interest) and access to leasing tools that better account for the costs, benefits and timelines of adopting conservation practices (62% indicating some level of interest).

In summary, landowners are willing to work with their farmer to implement additional conservation practices but are not looking for additional information, resources or programs to interact with. These survey results suggest that if NOLs are presented an "Easy Button" by their farmers to sustain or implement soil health benefiting practices, many are willing to make such changes.

## TRIAL PROJECT AND QUALITATIVE RESEARCH WITH PURDUE UNIVERSITY

A qualitative evaluation of non-operating landowners and barriers to utilizing conservation practices on rented farmland was performed by Dr. Linda Prokopy and the Natural Resources Social Science Lab at Purdue University, which she oversees. The evaluation included a literature review and a series of 40 structured in-person interviews with in-state and out-of-state NOLS, farm managers, farmers, and extension staff in the focal states of Illinois, Indiana and Iowa. The interviews identified and categorized the perceived barriers to using conservation practices on rented farmland into five primary categories listed in Figure 3. Different parties emphasized the significance of different barriers relative to others, with the non-operating landowners themselves not perceiving certain barriers. This research helped identify that there are multiple, inter-related barriers impeding NOLS and farmers working together towards long-term soil health improvements.

The qualitative research informed a behavioral economic trial study, where trial recruitment mailers were sent to over 40,000 NOLS owning land in Illinois, Indiana and Iowa. The mailers tested responsiveness to a set of messages that employed altruistic vs. egotistic messaging as well as positive vs. negative framing, inquiring if the landowner was interested in learning more about soil health. Responses ranged from 8-11% per message, with the information only “What is Soil Health?” soliciting the relatively highest response. The 4,000 respondents that returned the post cards were then randomly selected for participation in a trial where they were selected to receive one of three treatments. Treatments included:

- 1) a soil health packet with information on soil health practices and state-specific resources to implement these practices,
- 2) the soil health packet plus sample lease language on how cover crops could be included into a crop lease,
- 3) the above two interventions plus a financial incentive of \$1,500 to plant cover crops on at least 40 acres of their farmland.

Landowners agreed to participate in the trial by returning a contract and a copy of their lease demonstrating that they required the planting of a cover crop following the 2018 growing season. Remote sensing technologies will be used to verify actual adoption. This project is ongoing, with anticipated satellite data analysis and final project evaluation to be completed by January 31, 2020. Initial responses to the financial incentive, which was designed to be competitive on a per-acre basis with the United States Department of Agriculture’s Natural Resource Conservation Service cost-share programs, received an initial response rate of 1.5%. Initial results underscore the interaction of the various barriers and the limited effect of common conservation interventions such as information campaigns and practice cost-share. Results from the other intervention are being collected, and final project results will be reported in early 2020.

**Fig. 3: Perceived barriers to the adoption of conservation practices on rented land**



### **A. Information deficit**

- Economic, operational, agronomic
- Assistance: financial, technical
- Rights, obligations
- Negative externalities

### **B. Motivations and incentives**

- Short-term financial
- Dependency on income

### **C. Lease terms**

- Annual renewal and insecurity
- Cash rent
- Negotiation timeline

### **D. Cultural/interpersonal**

- Status quo bias
- Risk aversion
- Aesthetics
- Deference to tenants
- Lack of sense of place, generational differences

### **E. Rental market**

- Competition
- Commodity and rental price trends

A Purdue-Nature Conservancy study (Ranjan et al. 2019. “Understanding barriers and opportunities for adoption of conservation practices on rented farmland in the US.” Land Use Policy 80:214-223.) examined barriers that lead those farming on rented land to adopt conservation practices at a lower rate than operators farming on land they own. The findings could lead to strategies that increase adoption of conservation practices. © Will Conkwright





Soil health is essential to the long-term sustainability of U.S. farms. © Nick Hall

## LEGAL ANALYSIS OF TAX CODE PROVISIONS FOR NOLS AND CONSERVATION

The role of state and federal taxes related to conservation expenses, farm rental income, and estate planning was raised multiple times through the advisor workshops as a mechanism(s) that could potentially help non-operating landowners and farmers invest in mutually beneficial soil health practices. The Nature Conservancy (TNC) commissioned the Conservation Law Center at Indiana University to assess relevant state and federal tax law related to income and estate taxes, as well as public benefit corporation provisions as they relate to non-operating landowners. Because each landowner's tax and financial situation is unique and often complex, it is difficult to draw firm conclusions about how the tax code could incentivize conduct. Accordingly, the summary below is general in nature and should not be relied upon with respect to any particular landowner.

**Income tax treatment of cover crop expenses:** The use of cover crops can greatly improve soil health. It is not clearly established whether the annual cost of cover crop planting and management would be classified as a deduction or a capital expenditure for income tax purposes. In general, deductions are preferable as they allow the full deduction of the expense in the year it occurs, rather than amortized as a capital expenditure over a depreciation schedule. There are multiple tests to determine whether an expense is a deduction or capital expenditure, and elements of soil health practices satisfy criteria of both. For example, land is a capital asset and expenses to build and maintain soil could therefore be viewed as a capital expenditure. In the opinion of the Conservation Law Center, the stronger position is that costs related to soil health can be deducted in the year incurred and not treated as a depreciable capital expense, as they satisfy the requirements of the 12-month rule (Treas. Reg. 1.263(a)-4(f)(1)) pertaining to real estate improvements (i.e., that a right or benefit does not exist beyond 12 months from the first realization of the right or benefit). The interpretation is that since cover crops are removed 7 to 8 months after being planted, and there is not a clear long-term financial benefit from the one-time planting of cover crops, the annual cost of planting a cover crop would satisfy the 12-month rule.

**Level of participation and eligible deductions:** The level of the NOL's participation in the farm operation has implications for income tax rates, available deductions, and potential estate tax obligations.

*Passive Participation:* If the NOL uses a cash lease, the income is considered "passive" and therefore the NOL's expenses may be deducted but only to the limit of the lease income. However, the NOL will not be able to deduct any net losses from the leasing activity against other income. Because the cost of planting cover crops is relatively small, in relation to anticipated farm income, it is likely that most NOLs will be able to fully deduct these costs by still having net income from the leasing activity. If the NOL has a more engaged form of participation, through a cost share lease or other mechanism, the NOL may be able to utilize losses resulting from larger expenses, including conservation expenses.

*Material Participation:* The most engaged form of participation is *material participation*, which allows for more liberal deductibility but also subjects the taxpayer to undesirable self-employment taxes. A catch-all standard for material participation in a business is that the taxpayer's participation in the business is "regular, continuous, and substantial." A common rule for this determination is providing 500 hours of work in the business, although other tests exist. It's unlikely that many NOLs would meet, or want to meet, the definition of material participation.

*Active Participation:* *Active participation* is defined as making management decisions in a "significant and bona fide sense." Those that meet the active participation definition and earn less than \$150,000 in adjusted gross income may qualify to deduct up to \$25,000 of passive income losses from real estate rental activity in which the taxpayer "actively" participates. Sec. 175 of the Tax Code provides further benefits to some taxpayers who are "engaged in the business of farming" by allowing certain conservation expenses related to their farming operations to be deducted in full in the year incurred, rather than being treated as capital expenses amortized over a term of years. There are significant restrictions, eligibility criteria, and qualifications applicable to Section 175.

While these tax code provisions may apply broadly to the costs of soil health practices, the individual financial benefit may be limited. The American Farmland Trust survey, described in “NOL Demographic Survey” section, estimates that 94% of Iowa NOLs had gross farm rental incomes of less than \$125,000 in 2017, placing them in tax brackets where tax deductions may not be compelling incentives for conservation actions. Assuming a NOL meets all the tax code qualifications to claim an immediate deduction for a soil health expense, the deduction may be modest (e.g., \$20 per acre) relative to the magnitude of rents (e.g., \$180 per acre). Even when a full deduction is not available in the year of the expense, the NOL may be able to depreciate the cost as a capital expense over a term of years, but this would further reduce the impact of the tax savings in a given year. Although these options provide an opportunity to lower annual income tax obligations for a NOL committed to contributing to cover crop costs, they do not create a net positive cost-saving to the NOL.

**Estate Taxes:** The applicability of federal estate taxes is not expected to be a factor for the majority of NOLs as the current exemption for federal estate taxes for estates less than \$10M encompasses the vast majority of NOLs and farm estates. Further limiting the applicability of federal estate taxes is the 2032a special use election (26 U.S.C. § 2032A), which allows a farm to be valued at its agriculture value, rather than fair-market value, for estate tax purposes. The 2018 inflation adjusted limit for this deduction is \$1.14M.<sup>3</sup> Midwestern states such as Illinois, Iowa and Minnesota have adopted similar provisions for special property valuations for state estate tax purposes. For example, Illinois allows farmland owners materially participating in the operation of their farm to make use of an Illinois 2032a special use election if the land is transitioned to a family member who maintains agricultural production on the land for a 10-year period. Whether a decedent used a crop-share or cash rent lease would affect qualification for this election. The applicability of this provision, however, appears limited as Illinois exempts estates valued at less than \$4M from the state’s estate tax. Increasing state estate tax exemptions limit the applicability of estate tax concerns for many NOLs in Midwestern states. For example, the Minnesota state estate tax exemption will increase up to \$3M by 2020, there has been an outright elimination of state estate tax in Indiana and Ohio, and there are exemptions for a close relative to the decedent in Iowa. In summary, the applicability of estate taxes to farm land operations and the ability to leverage for conservation improvements is limited.

**Public Benefit Corporations:** Even for family farms, corporations are a common form of ownership. For example, 13.5% of rented farmland in Indiana is owned as a corporation.<sup>4</sup> Family corporations and limited liability companies have incorporation agreements and bylaws that may dictate how land under corporation management can be managed, but the presumption is that they will be managed to maximize profit to members of the firm. Public Benefit Corporations, or LC3 or B-Corps, allow for the firm to act in ways other than profit maximization. Public Benefit Corporation bylaws for a particular farm could incorporate long-term sustainability of farmland as supported by soil health and conservation management. Most Midwestern states either have laws enabling the establishment of Public Benefit Corporations or have proposed legislation to enable their establishment. The incentive for a NOL or farm family to establish a B-Corp relative to a traditional for-profit family corporation is to take away any claim that the corporation’s managers are breaching a fiduciary duty to the corporation by incorporating conservation practices that may not maximize short-term profit. However, B-Corps confer limited additional tax benefits while creating additional reporting and management requirements.



Corporations are a common form of ownership for family farms. © Nestlé Purina PetCare Company

<sup>3</sup> <https://www.bna.com/irs-announces-2018-b73014471236/>

<sup>4</sup> [https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/TOTAL/index.php](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/TOTAL/index.php)

## LEGAL ANALYSIS OF TRUST OWNERSHIP AND FIDUCIARY RESPONSIBILITIES IN RELATION TO SOIL HEALTH

Trust and corporation (family corporations and limited liability companies) ownership account for 29% of rented farmland in Illinois, 29.5% in Indiana, and 22% in Iowa.<sup>5</sup> As ownership is further fractionated among subsequent heirs, especially those lacking an agricultural background, the use of these ownership structures is anticipated to further increase as a relative proportion of farmland acreage. In Iowa, farmland in trust ownership has increased from 1% in 1982 to 10% in 2007 and up to 20% in 2017 (Zhang et al. 2018).<sup>6</sup> Corporations, including limited liability companies, like trusts, often have multiple parties with an interest in the property. Although these ownership structures can present barriers for soil health adoption on rented farmland, their multiple parties have the ability to monitor the performance of the soil asset, and if necessary, seek remedies if the asset is being mismanaged.

The fiduciary responsibilities of trusts may create potential barriers for the adoption of soil health practices on rented farmland. This discussion is primarily focused on irrevocable trusts, where the trustee and beneficiary are separate parties. Irrevocable trusts are commonly used to provide income to spouses, children, and heirs without burdening them with management and to protect the asset from creditors. The trustee is a legal entity with title to the asset that manages the trust on the behalf of beneficiaries and has the fiduciary responsibility to manage the land asset for the optimal financial benefit of all beneficiaries, unless otherwise stipulated in the trust document. This responsibility is commonly, if incorrectly interpreted as maximizing annual cash-rent. In situations where one or more beneficiaries expresses an interest in cover crop usage, any reduction in annual rent such as the cost of the cover crop seed, could be challenged and dismissed by another beneficiary or the trustee on the grounds of neglecting the fiduciary responsibility of the trust. In the absence of robust financial data demonstrating an expected financial return to the landowner from the utilization of soil health practices, this argument is presently difficult to refute.

Legal recognition of soil health as a valuable asset, including the long-term productivity of the land asset as supported by soil health considerations, may influence the ability for trusts and corporations to manage land consistent with their fiduciary responsibilities. A legal review did not find any precedent in case law for this argument, although there are compelling provisions and rulings within Iowa law that could make such an argument. The significance of agriculture to Iowa's economy has presented a perhaps deeper consideration of agriculture and farm management issues by its courts and legislature relative to most other states. These provisions include:

- The landowner's duty of stewardship has been established by the Iowa Supreme Court on multiple occasions (1943 ruling in *Benschoter v. Hakes, Woodbury County Soil Conservation Dist. v. Ortner* in 1979) that Iowa's landowners hold soil in trust for the good of the public.
- The Iowa State Legislature, in the establishment of Soil and Water Conservation Districts, noted that landowners have a duty to establish and maintain soil (and water) conservation practices as required by the districts. See Iowa Statutes 467A.43.
- Some courts may recognize a covenant of good husbandry (see, e.g. *Moser v. Thorp Sales Corp*, 312 N.W.2d 881, 904 (Iowa 1981) (Reynolds, J. dissenting), as evidenced by the currently accepted management practices. As cover crops and soil health systems may not be practiced at levels to be considered generally accepted within a community, this concept may not immediately apply to this discussion.

Lack of legal precedent and inability to rely on judicial recognition of a legal duty regarding conservation presents other opportunities to proactively educate attorneys and their farmland owning clients on the opportunities to bring conservation stewardship into the documents governing corporation and trust establishment, described below in the Promising Strategies section on page 12.



Cover crops, like those seen here, provide soil microbes with food and shelter from temperature extremes. © Ron Nichols/NRCS

<sup>5</sup> [https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/TOTAL/index.php](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/TOTAL/index.php)

<sup>6</sup> Zhang et al. 2018. Iowa Farmland Ownership and Tenure Survey 1982-2017: A Thirty-five Year Perspective





About 70 percent of rented farm acres in the Midwest is on a cash-rent basis, with less than 20 percent on crop-share basis. © Timothy T. Lindenbaum/The Nature Conservancy

## STRATEGIES EXPLORED: CHALLENGES WITH DEVELOPING ECONOMIC INCENTIVES FOR NOLS

**Land Valuation:** It seems intuitive that by improving soil health and the productivity of farmland, that land values should inherently increase, and this appreciation of land value would be of interest to many NOLs. Exploration of this linkage was an explicit focus of each of the advisor workshops, where an agricultural economist provided an overview of land valuation methodologies used by rural appraisers and within economic theory. These presentations described the structural factors that influence land values such as interest rates (10-year treasury note), expected returns from crop production (cash-rent), development demand, and property characteristics that are conducive to conventional farming practices (e.g., slope, size, access, tile drainage, etc.). Where soils are recognized in conventional capitalization models, it is through productivity indexes that project expected corn or grain yields across soil types. These static soil type representations allow market participants to objectively and transparently contrast inherent productivity among parcels based on readily available data. What they do not provide is a dynamic accounting of a property's soil health. It is possible that these productivity indices, such as the Corn Suitability Rating in Iowa could be modified with dynamic soil health factors given more expansive soil health data, such as that being collected by the Soil Health Institute and Soil Health Partnership. However, the net effect of incremental improvements in crop productivity from soil health on land values would likely be de minimis relative to variances in interest rates, commodity prices and expected rental returns. Emerging research on natural capitalization models which quantify the economic value of lost productivity over time from depletions in natural stocks may provide an alternative framework to better recognize the value of soil to sustained agricultural productivity.<sup>7</sup> The ability to quantify soil depreciation and replenishment rates through such a framework would be anticipated to provide a compelling signal to many NOLs.

Land appraisals that attempt to estimate the value of a parcel of land at a point in time are typically performed for legal events such as a sale or loan application. A comparable sales method, or Market Valuation Approach, allows the professionally certified appraiser to contrast the attributes of a parcel relative to comparable sales from the surrounding region, of which soil productivity would be a component. This more localized valuation approach could recognize relative soil health attributes among properties. Anecdotally, there are examples of local land buyers paying more for parcels that have a history of soil health systems relative to parcels that have had their productivity "mined." A regional multi-county market study could potentially quantify the relative value of soil health attributes at a regional scale.

<sup>7</sup> Fenichel et al. 2016. Meas. the value of groundwater and other forms of nat. capital, PNAS 113(9): 2382-2387

The strategic significance of improved land values as a motivation for soil health improvements appears limited for a majority of NOLs. The AFT survey results indicate that land is remaining within families for multiple generations; approximately 70% of NOLs anticipate that the next landowner will be a relative, while only 8% of Iowa NOLs indicate they plan to sell to the highest bidder. The USDA TOTAL survey confirms this intention. For example, 3.6M acres of NOL rented land in Illinois, Indiana and Iowa in 2012 is anticipated to be transferred from 2014 to 2019, with 610,464 acres (17%) anticipated to be transferred via a sale to a non-relative.<sup>8</sup> This generational transfer of farmland within families is consistent with the reported primary financial motivations for maintaining landownership being annual income by the AFT survey. Modest increases in land value have the potential to increase property tax obligations and capital gains taxes, neither of which is desirable for a legacy-oriented NOL. There is a segment of investment-oriented landowners to which opportunities to improve the value of their land may appear attractive, such as institutional investors. However, corporate investors account for less than 4% of rented farmland acres in the three I-states.<sup>9</sup> Given the uncertainty and likely limited ability to influence land values relative to other factors, and the financial motivations for the majority of NOLs focused on annual income, demonstrating ability to increase land values is anticipated to be a low impact strategy for NOL engagement.

**Land Rents:** Behavioral, political and economic factors constrain opportunities for land rent adjustments to motivate greater soil health practice adoption on rented farmland. Approximately 70% of rented farmland acres in the Midwest is on a cash-rent basis with less than 20% on crop-share basis.<sup>10</sup> There are regional pockets where crop-share rental agreements are more common, such as southern Illinois where 79% of grain crop acres are rented of which only 47% are in a cash-rent arrangement.<sup>11</sup> However, the general trend towards cash-rent is increasing over time. For instance, in Iowa in 1992, cash-rent accounted for 54% of rented acres, 67% in 2002 and 81% in 2017.<sup>12</sup> Cash-rent arrangements simplify the rental process to a transaction requiring little farm management knowledge or involvement on the part of the landowner. As more landowners are removed from farming or depend on rents for reliable income, the simplicity of cash-rent will remain popular. In simplifying the arrangement for the landowner, cash-rent arrangements shift the production, marketing and farm market volatility risk onto the farmer. The growth of USDA-sponsored crop insurance programs that cover net revenue losses, both yield and price volatility, have helped farmers bear these additional risks and likely contributed to the increased willingness of farmers to utilize cash-rent arrangements. In 2018, the federally subsidized Revenue Protection insurance policy encompassed over 90% of farmland acres insured in Illinois (19M acres insured in total of the approximately 22M acres of corn and soybeans planted in the state).<sup>13,14</sup> The implication for conservation and soil health of cash-rent arrangements is that the landowner does not realize a gain or loss from intra-season variability, and therefore does not have a direct incentive to stabilize variability or optimize yields. Where farmers realize reduced input costs from soil health improvements, a landowner with a cash-rent lease would not directly realize those benefits. Anticipated cost-savings and improved benefits from soil health improvement are therefore primarily realized by the farmer, and not the landowner, with a cash-rent lease.

The interpersonal relationship of a NOL and their farmer(s) likely inhibits the interest of NOLs to increase rents due to soil health improvements, as maximizing annual cash-rents does not appear to be a strong motivation for the majority of NOLs, particularly if it is at the expense of the farmer. Although over 70% of leases are year-to-year; the average duration that a farmer has leased land from a family is 16 years, and over 80% of farmers are either a relative or friend of the family to the landowner (Iowa AFT survey). In the AFT survey, NOLs were asked to rank over 14 tenant attributes as being “Not at all Important” to “Very Important.” Only 47% of Iowa NOLs indicated that paying the most rent was very important, the 13th lowest scoring attribute. Trustworthiness (94% very important), financial prudence (84%), and stewardship characteristics (84%) were more highly valued farmer attributes.



## WHAT'S THE BOTTOM LINE?

The American Farmland Trust study revealed that landowners are willing to work with their farmer to implement additional conservation practices. However, they are not looking for additional information, resources or programs to interact with.

These survey results suggest that if NOLs are presented an “Easy Button” by their farmer to sustain or implement soil health benefiting practices, many are willing to make such changes.

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<sup>8</sup> [https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/TOTAL/index.php](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/TOTAL/index.php)

<sup>9</sup> [https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/TOTAL/index.php](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/TOTAL/index.php)

<sup>10</sup> Bigelow et al. 2016. U.S. Farmland Ownership, Tenure, and Transfer Fig. 15

<sup>11</sup> Table 1, <http://farmlandocdaily.illinois.edu/2013/10/illinois-farmland-leasing-changes.html>

<sup>12</sup> Zhang et al. 2018. Iowa Farmland Ownership and Tenure Survey 1982-2017: A Thirty-five Year Perspective

<sup>13</sup> <https://prodwebnlb.rma.usda.gov/apps/SummaryofBusiness/PreparedReports>

<sup>14</sup> [https://www.nass.usda.gov/Quick\\_Stats/Ag\\_Overview/stateOverview.php?state=ILLINOIS](https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=ILLINOIS)



## PROMISING STRATEGIES

Through the body of work described above, additional research, and discussions with various agricultural and land management stakeholders, a set of promising strategies have emerged which collectively have the potential to move the needle on soil health practice adoption on rented cropland in the Midwest. These promising strategies include multi-year agreements between NOLs and farmers, creating additional financial incentives tied to the use of multi-year agreements, bolstering farmer-led NOL engagement, agriculture attorney education on conservation opportunities in trust and corporation establishment, and creating NOL-specific communication resources that can be targeted to key NOL demographics.

**Multi-year landowner-farmer agreements:** The benefits of soil health practices and systems generally take multiple years before they are realized. Annual leases, even if renewed over multiple years, provide no assurance to a farmer implementing soil health practices that they will have access to the land when the expected benefits of reduced input costs and improved yields might be realized. A multi-year agreement, which provides desired flexibility to modify rents and terms on a prescribed annual basis while preserving the multi-year commitment between parties, would remove a substantial set of barriers for conservation practice adoption on rented farmland.

An agreement that retains an interest in property through changes in ownership and tenancy, such as a short-term “Soil Health Agreement” may be desirable where there is uncertainty in the future ownership of a parcel of land. A five-year or similar termed agreement that provided remedies to either party in case of early termination would allow flexibility if a change in ownership were to occur. Landowners and farmers would have a long-term commitment to improve soil health and either party could be compensated accordingly if the other party decided to terminate the agreement. A “Soil Health Agreement” could be attractive if tax, Farm Bill or other policy changes were created to provide added financial incentives for the use of such a tool.

**Proposed Action:** Convene a workshop of agricultural attorneys, agriculture finance experts, and agricultural economists to draft insertions for a flexible and robust multi-year agreement. This would include an easy to use annual rent index where the parties could fairly adjust rental terms in response to market conditions. It would also account for the annual costs, benefits and risks of additional soil health practices and how those are allocated between the parties over time. The template multi-year agreement would be distributed through NOL and farm communication outlets. A part of this workshop would also be dedicated to determining the feasibility of a Soil Health Agreement concept.

**Preferred operating loan terms for farmers with multi-year agreements:** Many farm operations utilize operating loans to purchase annual inputs, insurance and other operational costs with annual borrowing rates of 3.5 to 9.5%.<sup>15</sup> Conceivably, a farmer with the demonstrated control over farmland acres for multiple years for which they can spread their fixed costs across (e.g., machinery) will be more likely to service their operating loan debt and be a lower risk borrower, all things equal. A multi-year agreement could be used to demonstrate stable control over farmland acres that could be used to provide preferential borrowing terms for eligible farmers. As an example, an annual operating loan for \$400 per acre with a 1.5% reduction in the borrowing rate would provide a \$6.00 per acre benefit to an eligible farmer.

**Proposed next-steps:** Further explore opportunities with the farm finance sector.

**Tax reforms to reward NOLs supporting soil health:** As stated in the Legal Analysis of Tax Code Provisions section (page 6), NOLs may be able to expense conservation costs against their rental income in the year that the costs were incurred, although this does not provide a net positive economic benefit to the landowner. One reform could be the liberalization of Sec. 175 of the Tax Code, which already includes provisions to ensure that practices eligible for tax advantages are reviewed through existing USDA programs, such as the NRCS Conservation Plan, to equally recognize a multi-year conservation agreement.

Section 175 currently provides for the costs of certain capital conservation improvements to be deducted fully in the year incurred if the criteria are met. A refundable tax credit to NOLs for qualifying conservation expenses would provide a much stronger benefit than a deduction. The scope of qualified conservation expenses eligible for the credit could be expanded as necessary to include the planting of cover crops and other short-term activities. For example, a \$25,000 conservation tax credit could be used to fund the planting of cover crops on over 700 acres, assuming a \$35 per acre cover crop cost. In rural states such as Iowa, where many NOLs do not reside in the immediate region of their rented land, rental incomes represent a transfer of wealth out of regional economies. A tax credit for soil health expenses, however, could help incentivize reinvestment into rural economies through the purchase of local services and products. Impacts on county roads and drains from excessive soil erosion and the avoided future maintenance and repairs from improved soil health practice adoption could provide additional economic benefits from the proposed tax credit.

**Proposed next steps:** Start with exploration of state tax policies, identifying states with suitable fiscal and political conditions for the proposed tax credit. Identify in-state farm representatives that would benefit from such a tax provision and perform tax analysis to estimate net fiscal impact on state budget(s).

**Farmer-led engagement:** A common theme from grower group representatives that participated in the advisor workshops was that growers want to use conservation practices on rented land but don't feel comfortable pushing the issue with their landowners. Groups like the Illinois Corn Growers Association are developing programs to empower farmers to pilot practices like cover crops

on rented farmland through simplified practice trials. Additional policy support for similar and simple cost-share programs that provide an opportunity to try a new practice on a portion of a field for a multi-year commitment would be valuable. Organizations like TNC can co-develop and support these and other programs, including incentives and content, for growers to enhance this dialogue with their landowners. The AFT Survey overwhelmingly confirmed that the farmer is the most trusted source of land management information and decision making to NOLs. As the managers of the land, farmers are also uniquely qualified to convey farm-specific conservation needs. Precision conservation and agriculture tools could be leveraged to demonstrate the benefits of additional conservation practices to NOLs that may not otherwise realize the need. It is apparent that any effective NOL strategy will require a strong farmer-focused and -led engagement.

**Proposed next steps:** Continue to identify partners who can empower farmers to have the information and tools needed to talk to their landowners about soil health. For instance, TNC co-hosted a session on “Talking to your Landowner” at the 2019 Soil Health Summit hosted by the Soil Health Partnership. Conduct message testing that identifies the best way to talk about soil health that resonates with both growers and landowners.

**NOL-specific resources:** A one-stop shop for conservation and leasing tools, including a user-friendly website was identified as a top need in each of the advisor workshops. NOL-specific resources were also the most favorably rated conservation intervention in the AFT survey, with 69% of Iowa NOL respondents expressing an interest in these types of materials. American Farmland Trust and NRCS have a jointly managed website<sup>16</sup> that is intended to serve this purpose, but it contains non-NOL related information, and based on stakeholder awareness from the advisor workshops, does not appear to be widely recognized. Conservation technology company Agren developed a similar website with grant support several years ago, but lacking support and upkeep, it is not actively promoted. There remains a need for a neutral, professional and informative NOL-focused website and advertising campaign. Videos or case-studies of landowner and farmers discussing why soil health works for them could be a powerful set of communication assets for this purpose.

**Proposed next steps:** Identify the best outlets for reaching landowners, conduct message-testing that identifies the best way to talk about soil health in a way that resonates with both growers and landowners, and create content that can motivate landowners to action.

**Attorney education in trust and corporation establishment:** Trusts and corporations must abide by their by-laws, incorporating agreements, and applicable state law. Attorneys draft trust and corporation agreements to meet the individual objectives and needs of their farmland owning clients. Commonly expressed objectives include maintaining the land in agricultural production and providing heirs a first-of-right opportunity to farm the land. According to the agricultural attorneys that participated in our three advisor workshops, conservation stewardship is not part of this conversation; although it easily could be. Iowa-based attorney Ed Cox has drafted template stewardship language that can be incorporated into trusts as they are established by interested parties. Mr. Cox is coordinating with fellow agriculture attorneys to communicate this opportunity and explain how the template language can be used and modified to meet client needs. This outreach includes national and state-level Continuing Legal Education opportunities to educate fellow attorneys on how conservation stewardship can be part of the trust establishment conversation. From 2014 to 2019, it is anticipated that 7% of farmland currently rented out by a NOL will be transferred via a trust in Illinois, Indiana and Iowa.

**Proposed next steps:** Expand the scale of existing outreach to attorneys, for example through American Agricultural Law Association and Agriculture Chapters of State Bar Associations.

**Targeted outreach and NOL engagement:** A minority of NOLs own a disproportionate number of NOL rented acres. In Indiana, less than 13% of NOLs own 51% of NOL rented acres, whereas 51% of NOLs (those owning less than 49 acres of farmland) own less than 12% of total NOL rented acres.<sup>17</sup> The distribution is slightly more balanced in Iowa with 23% of NOLs owning 55% of NOL rented acres.<sup>18</sup> We continue to analyze who these large acre-owning NOLs are for further strategy development. An anecdote that was revealed in our Illinois Advisor Workshop was the influence that an institutional landowner such as the University of Illinois Foundation can have on additional landowners through the precedents they set and the lease terms they provide. Influential landowners such as these can likely be leveraged for greater conservation effect.

**Proposed next steps:** Identify influential landowners in key states and identify the best tools for them to apply soil health practices on their rented land.

## SUMMARY

The information gathered over the last year and the experiences shared from the numerous stakeholders that contributed to this process underscore how much remains unknown about NOLs and the complexity of increasing conservation practices on NOL rented farmland acres. Like many conservation challenges, there appears to be no “silver bullet.” However, this report has identified several promising strategies that—if successfully stacked and coordinated with a broad range of agriculture and conservation stakeholders—have the potential to measurably improve the use of soil health practices on rented farmland.

<sup>15</sup> <https://www.edf.org/sites/default/files/documents/farm-finance-report.pdf>

<sup>16</sup> <https://www.farmlandinfo.org/landowner-options>

<sup>17,18</sup> [https://www.nass.usda.gov/Publications/AgCensus/2012/Online\\_Resources/TOTAL/index.php](https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/TOTAL/index.php)