





Review Article

Financial Literacy Education in Agriculture: Bridging the Gap Between Farm Profitability and US Economic Stability

Simon Adeiza Jacob^{1*}, Tobi Olasunkanmi Olaoye ², Adebayo Fatai Lamidi³, Adeyemi Junior Olatunbosun ⁴, Oluwafunmilayo Esther Ajiferuke ⁵, Tope Joseph Arayombo ⁵ and Ada Mba Ukwu⁶

¹Department of Agricultural Economics, Oklahoma State University, USA.

²School of Advanced International Studies, Johns Hopkins University, USA.

³Department of Banking and Finance, Osun State University, Nigeria.

⁴Robinson College of Business, Georgia State University, Atlanta, USA.

⁵Department of Agricultural Leadership, Education and Communication, University of Georgia, USA.

⁶Department of Business Education, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

*Corresponding author: Adaukwa31@gmail.com

Article Info

Keywords: Financial literacy, Farm profitability, Agricultural education, Risk management, Farm financial management.

Received: 01.01.2026;

Accepted: 18.01.2026;

Published: 24.01.2026



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Abstract

American agriculture faces mounting financial pressures from rising input costs, heavy debt burdens, and volatile commodity markets that threaten farm profitability and broader economic stability. This literature review examines the role of financial literacy education in addressing these challenges by synthesizing recent research on farmer financial management programs in the United States. The review analyzes studies from 2015-2025 that document relationships between financial literacy, farm performance, and educational interventions delivered through land-grant universities, Cooperative Extension services, and USDA-funded programs. Evidence demonstrates that farmers with enhanced financial literacy achieve significantly better outcomes, including improved profitability, lower cost of debt, more effective risk management, and greater resilience to market shocks. Educated farmers adopt practices such as detailed budgeting, strategic use of credit, crop insurance utilization, and data-driven decision-making that strengthen individual operations while contributing to agricultural sector stability. However, barriers to program participation persist, including time constraints, geographic distance, and disconnect between informal farmer practices and formal financial requirements. The review identifies critical needs for tailored educational approaches that address diverse farmer populations, from beginning producers requiring foundational skills to established operators seeking advanced financial planning. By equipping farmers with financial management competencies, formal education programs represent a strategic investment in both farm-level success and national economic security, reducing bankruptcy risks, stabilizing rural economies, and minimizing the need for government interventions while supporting a resilient food supply system.

1. Introduction

Agriculture remains a vital pillar of the United States economy, contributing hundreds of billions of dollars in farm output and underpinning a trillion-dollar agri-food sector [1]. The vast majority of U.S. farms are family-owned and small-scale operations, which collectively steward about 897 million acres of farmland and form the backbone of rural communities [2–4]. Despite their importance, American farmers

face intensifying financial pressures. In recent years, production expenses – from fertilizer and fuel to feed and machinery – have surged, squeezing profit margins [5, 6]. At the same time, many producers carry substantial debt loads, with farm sector debt climbing to historically high levels (even as asset values like land have also risen) [7–9]. These conditions are compounded by volatile commodity markets: prices for crops and livestock can swing widely due to global supply shocks, trade disruptions, or weather extremes. Such volatility means farm incomes can spike or crash from year to year, exposing farmers to significant financial risk [10, 11]. Taken together, rising input costs, heavy debt burdens, and market volatility threaten the profitability and resilience of farm businesses [12, 13]. These farm-level challenges have broader implications beyond the farm gate. Widespread financial stress in agriculture can undermine rural economies and even pose risks to national economic stability [12, 14, 15]. History offers sobering lessons: for instance, the farm debt crisis of the 1980s saw collapsing land values and loan defaults that rippled through rural banks and communities [16, 17]. Ensuring the financial health of farms is therefore not just an agricultural concern but a matter of public interest. Profitable, solvent farms support local employment, maintain food supply stability, and reduce the need for government bailouts or emergency aid [18, 19]. Conversely, farm failures or bankruptcies can erode the economic base of entire regions and require costly interventions [20–22].

Amid these concerns, attention has turned to financial literacy and management education as a strategy to bolster farm profitability and stability. Financial literacy refers to the knowledge and skills to make informed financial decisions – including budgeting, investing, using credit, and risk management [23, 24]. In agriculture, financial literacy translates into a farmer’s ability to analyze enterprise costs and returns, manage debt wisely, navigate loans and insurance, and plan for market uncertainties [25–27]. The premise is that better financial management practices on the farm will lead to more efficient use of resources, improved profitability, and greater resilience to shocks, thereby helping bridge the gap between individual farm success and broader economic stability. Financially savvy farmers are theorized to make decisions that not only strengthen their own operations but also contribute to a more robust agricultural sector that can withstand cycles of boom and bust [28–30]. This introductory section has outlined the problem context – the economic importance of U.S. farms and the financial pressures they face – and introduced financial literacy education as a potential solution. The following sections provide a review of recent literature on this topic, the methodology of this review, key findings and discussion, and concluding insights on the role of farmer financial education in sustaining U.S. agriculture and economic stability.

2. Literature Review

2.1. Financial Challenges in Modern U.S. Agriculture

Farmers today operate in a challenging financial environment characterized by thin margins and high uncertainty. A multitude of studies document the economic pressures bearing down on farms, especially small and mid-sized family farms that dominate the U.S. landscape [31]. One major challenge is the escalation of input costs. Prices for essential inputs such as fertilizers, seeds, fuel, and machinery have trended upward in the past decade, occasionally spiking due to global supply disruptions [32]. This “cost-price squeeze” means that expense growth often outpaces increases in commodity prices, eroding net farm income. Another persistent challenge is the heavy debt burden carried by many farms [33]. While low interest rates in the 2010s encouraged farmers to take on loans for land and equipment, the recent rise in interest rates has increased debt servicing costs [34]. Farm debt has risen by over 200% since the early 2000s, though rising land values kept average debt-to-asset ratios relatively stable until recently [35]. However, aggregate stability masks the vulnerability of highly leveraged farms. Credit constraints can severely limit a farm’s ability to invest and even operate: research shows that farms facing credit limitations have significantly lower output and income growth. For example, one study estimated that small U.S. farms with constrained borrowing capacity earned \$32,000–\$39,000 less in gross income compared to similar farms with sufficient credit access [31]. This illustrates how lack of financing or poor financial management can directly hurt farm profitability.

In addition, commodity market volatility has become a defining feature of agricultural markets, subjecting farmers to unpredictable income swings [36]. Global market fluctuations – whether from trade wars, pandemics, or geopolitical shocks – can send crop and livestock prices on rollercoasters [37]. Financially, this volatility translates into high income risk. Farmers must contend with years of windfall profits followed by years of steep losses [38]. Without proper risk management (such as hedging or insurance) and prudent financial planning, these swings can jeopardize a farm’s solvency. Indeed, farmers who lack the tools or knowledge to manage price risk may be forced to liquidate assets or incur unsustainable debt during downturns [39]. Studies highlight that financially literate farmers are better able to withstand such shocks. They tend to diversify income sources and make use of risk management strategies, which helps buffer against droughts or market crashes [40]. Overall, the literature paints a picture of an agricultural sector where financial stressors – high costs, indebtedness, and volatile returns – are prevalent. These stressors underscore the need for robust financial management skills on the farm.

2.2. Importance of Financial Literacy for Farm Performance

Financial literacy is increasingly recognized as a critical competence for farmers. In general terms, financial literacy encompasses understanding financial concepts (interest rates, inflation, cash flow, etc.), possessing skills to manage money, and having the confidence to make financial decisions. For farmers, who often function as small business owners, financial literacy directly influences their business viability. Several studies in the past decade have explicitly examined the link between farmers’ financial literacy and their farm outcomes. Empirical evidence strongly suggests that higher financial literacy correlates with better farm performance. For instance, a recent study in Sweden developed a farm-specific financial literacy scale and found that farmers scoring higher on financial literacy achieved greater farm profitability and incurred lower cost of debt compared to their less financially literate peers [41]. The financially savvy farmers were more likely to implement sound management accounting practices (e.g. detailed record-keeping, budgeting) and could access credit at lower interest rates, indicating lenders’ greater trust in their financial acumen. Although that study was in a European context, its findings echo broader trends noted by researchers globally. A review of multiple developing-country contexts similarly concluded that enhanced financial management skills contribute to increased farm efficiency, profitability, and resilience to external shocks [42]. In essence, farmers who understand finance make more informed production and investment decisions – for example, they might better analyze the cost-effectiveness of adopting a new technology or decide when taking a loan for expansion is prudent versus when to conserve cash.

Financial literacy also plays a role in risk management and strategic planning. Literate farmers are more likely to engage in practices like

maintaining savings, purchasing crop insurance, or using futures contracts to lock in price [31]. These practices can stabilize farm income over time. Moreover, financial knowledge empowers farmers in dealing with financial institutions. Studies have found that farmers with higher education or financial training are more comfortable with the paperwork and requirements of banks, and thus more likely to obtain credit on good terms [43–45]. By contrast, lower educational attainment can impede a farmer's ability to assess investment risks and navigate complex loan or insurance products, potentially leading to poorer financial outcomes [31, 46]. One consequence of low financial literacy that the literature notes is higher vulnerability to debt problems – farmers who do not fully understand loan terms or budgeting may overextend credit and face repayment trouble. This has implications not only for the individual farm (increasing bankruptcy risk) but also for lenders and rural financial stability. On the positive side, when farmers improve their financial literacy, they tend to adopt more robust financial behaviors: increasing their savings rate, carefully evaluating capital purchases, and diversifying their enterprises or income sources [47]. Such behaviors strengthen the farm's ability to remain profitable under changing economic conditions. In summary, abundant evidence now supports the idea that financial literacy is a key determinant of farm business success, influencing everything from daily cost management to long-term growth and survival.

2.3. Formal Financial Education Programs for Farmers

Recognizing the importance of financial skills, numerous initiatives have emerged to educate farmers in financial management. In the U.S., these efforts are largely concentrated in formal institutions such as land-grant universities, Cooperative Extension services, and USDA-funded training programs [48]. Over the last decade (2015–2025), there has been a growing emphasis on delivering financial literacy and farm management training, especially targeting small-scale, beginning, or otherwise vulnerable farmer groups [47]. For example, the USDA's Beginning Farmer and Rancher Development Program (BFRDP) has funded many projects that include components on business planning, record-keeping, and financial decision-making for new farmers [49, 50]. Participants in such programs have reported improved ability to track their farm finances, use government financial programs, and ultimately increase their profits and financial outcomes (as noted in program evaluation surveys). Cooperative Extension services in virtually every agricultural state offer workshops and one-on-one counseling on farm financial management. These range from short courses on understanding financial statements to extensive farm business management programs spanning months or years.

Research on the needs and effectiveness of these educational interventions provides useful insights. A focus group study in Montana, for instance, explored what young and beginning farmers most needed from education programs. The participants overwhelmingly identified business and financial management skills – alongside areas like legal knowledge – as critical educational needs for their success [51]. They indicated that learning how to budget, manage farm accounting, and make informed marketing decisions was as important as production techniques for running a profitable farm. However, the study also noted practical barriers that often limit farmers' participation in traditional classes: long distances to training sites, time constraints (especially during planting or harvest seasons), and sometimes a lack of awareness of available programs [51]. These findings have important implications for how programs are designed and delivered. Extension educators have responded by adapting program formats – for example, offering webinars and online tools to reach farmers remotely, or scheduling workshops in the off-season to avoid conflicts with peak farm work periods.

The literature also documents some success stories and lessons learned from financial education initiatives. Although rigorous evaluations are not always published in academic journals, a few studies and reports shed light on outcomes. A classic example is an analysis of farm finance workshops (albeit in the late 1990s) which found that participating farmers realized an average increase of about 4% in gross farm income attributable to the knowledge gained [52]. More recent anecdotal evidence from extension programs indicates that farmers who receive training often implement changes such as improving their record-keeping systems or negotiating better loan terms. There is also evidence that education can change farmers' outlook and confidence: after attending financial management courses, farmers report feeling more in control of their finances and less “in the dark” about their farm's financial health. Importantly, formal programs often encourage farmers to develop written farm business plans or financial plans, which can be a key tool for both guiding the business and communicating with creditors or investors.

However, challenges remain in fully bridging the gap between what farmers informally practice and what is expected in formal financial management. Nolan et al. (2024) describe a “disconnect” between many farmers' informal, experience-based approach to finances and the formal practices required by banks and regulators [53]. Farmers may keep information “in their head” or use idiosyncratic methods that suffice for day-to-day decisions, but these may not align with formal accounting standards or loan application requirements. This gap can lead to frustration on both sides: farmers feel burdened by paperwork, while lenders might see farmers as indifferent to financial discipline. Education programs strive to bridge this gap by both teaching farmers the language of finance and by conveying the value of formal financial practices. Some researchers suggest leveraging the timing of educational interventions to when farmers naturally pay more attention to finances (for example, during tax season or planning for the next production cycle). By doing so, trainings can be more relevant and immediately applicable. Additionally, partnerships have been recommended: agricultural colleges and extension working with farm credit institutions to deliver joint seminars. For instance, Sanglay et al. (2021) note that universities can lead collaborative trainings on income management to equip farmers with basic financial decision-making and savings skills [17].

In summary, the literature over the last decade underscores a few key points: (1) Farmers across all scales – small, large, and beginning – can benefit from enhanced financial literacy and many actively seek this knowledge; (2) Formal education programs in the U.S., primarily through extension and USDA initiatives, have been actively engaged in building farmers' financial management capacities, though participation barriers need continuous addressing; and (3) Early evidence indicates that such education correlates with improved farm financial practices and outcomes, but more empirical research on long-term impacts would be valuable. The next sections will outline how the present review was conducted and discuss in greater detail the findings on how financial education influences farm profitability and economic stability.

3. Methodology

This article is organized as a literature review examining recent research (primarily 2015–2025) on financial management education for U.S. farmers. A systematic approach was used to collect and analyze relevant literature. First, we defined the scope to include studies focusing on

the United States and on formal educational programs or interventions (such as extension courses, university training, and other institutional efforts to improve farmers' financial skills). We excluded literature on purely informal knowledge transfer (e.g. peer learning not facilitated by an institution) to align with the emphasis on formal education. We also included supporting research on financial literacy levels and financial behaviors of farmers to provide context, even if not tied to a specific education program. All types of farmers – small-scale, large commercial operations, beginning farmers, and established producers – were considered, in order to capture a comprehensive picture of the agricultural sector. However, special attention was given to studies that identified differences or particular needs among these groups. Literature was gathered through searches in academic databases (Google Scholar, AGRICOLA, EconLit) and journals spanning agricultural economics, agricultural education, rural sociology, and finance. Key search terms used included “farm financial literacy,” “farm management education,” “agricultural finance training,” “farmer financial performance,” and “risk management education farmers.” The search was filtered to roughly the last ten years to capture contemporary challenges like recent market volatility and the post-2000s credit environment.

In analyzing the literature, a thematic synthesis approach was used. We categorized findings into major themes such as “Financial Stress Factors in Farming,” “Impact of Financial Literacy on Farm Performance,” and “Outcomes of Farmer Financial Education Programs.” Within each theme, we compared results across studies to identify consensus findings and any divergences. Given that many education program evaluations were case-specific, we carefully noted context (e.g., region, target audience) when interpreting outcomes. The review is narrative in nature, aiming to integrate findings and draw broader insights rather than quantitatively meta-analyze results.

4. Results & Discussion

4.1. Enhancing Farm Profitability through Financial Education

The collective evidence indicates that improving farmers' financial literacy and management skills can indeed bolster farm profitability and financial health [27, 42]. Farmers who have undergone financial training or otherwise improved their financial acumen show notable changes in behavior that contribute to a stronger bottom line [13, 54, 55]. One clear outcome is better budgeting and cost control. Educated farmers are more likely to maintain detailed records of expenses and revenues, which allows them to analyze profit margins for different enterprises on the farm [56–59]. This often leads to strategic adjustments such as cutting unprofitable activities or finding ways to reduce input costs without sacrificing yield. For example, a farmer who learns how to perform enterprise budgeting might discover that a particular crop is consistently losing money and decide to shift acres into a more profitable crop or diversify into livestock. Such data-driven decision-making is a direct result of financial literacy and has been associated with improved whole-farm profitability [41]. Furthermore, farmers with financial training are better at measuring their farm's financial performance using standard metrics (net income, debt-to-asset ratio, rate of return on assets, etc.) [58, 60, 61]. This enables proactive management – they can detect early signs of trouble (like a declining liquidity ratio) and take corrective actions before the farm's finances reach a crisis.

Another profitability-related benefit of financial education is improved access to capital for growth. Many farmers cite lack of funds at critical moments as a barrier to expanding or increasing efficiency (e.g., buying a new tractor or adopting precision agriculture technology) [13, 62, 63]. Financial literacy training often covers how to interact with lenders, prepare business plans, and present financial information convincingly. As a result, farmers who have these skills tend to have better relationships with creditors and are seen as lower-risk borrowers [31, 41]. They can secure loans with more favorable terms (lower interest rates, longer tenures) which lowers their cost of capital. A lower cost of debt directly improves farm profitability, as confirmed by the finding that financially literate farmers in one study paid less for borrowed funds [41]. Additionally, some programs encourage farmers to analyze return on investment (ROI) for major purchases [64–66]. Farmers trained to calculate ROI or payback period might be more discerning about which investments truly enhance profitability. In this way, financial education helps allocate capital to its best uses on the farm.

4.2. Empirical Trends in Farm Financial Indicators

To contextualize the financial environment in which U.S. farmers make business decisions, it is important to outline recent trends in farm debt, assets, and credit performance. Broader financial indicators — such as rising sector debt and evolving loan delinquency rates — reflect the pressures that can influence farm profitability and resilience. Higher debt levels and credit stress, even when modest, increase the importance of rigorous financial planning, budgeting, and risk management on farms. These financial conditions underscore the need for enhanced financial literacy education as a strategy to help producers interpret balance sheets, manage liabilities, and make informed borrowing decisions that contribute to both individual farm success and rural economic stability.

The tables below summarize key farm sector financial indicators, including *debt and asset trends* and *credit performance metrics*, which together provide a backdrop for understanding why improved financial decision-making skills are vital for producers.

4.3. Mitigating Risk and Building Resilience

Profitability in agriculture cannot be considered without also considering risk, due to the volatile nature of farm income. An important result of farmer financial education is the adoption of risk management strategies that protect against the downsides of volatility [31, 73, 74]. Educational programs often introduce tools like crop insurance, futures and options markets, forward contracts, and diversification strategies. Farmers who increase their financial literacy gain understanding of how these tools work and how they can stabilize revenue [75, 76]. Empirical studies note that such farmers are more likely to purchase insurance coverage or use marketing contracts, thereby safeguarding a portion of their income from price swings or crop failures. Over the last decade, many extension-led workshops have specifically focused on commodity price risk management, reflecting the need to deal with unpredictable markets [77, 78]. Producers who attended these trainings reported greater use of futures and options to hedge prices, which in turn reduced the income variability of their operations (especially for those in grain and livestock sectors). This stability is crucial not only for the farm household's livelihood but also for creditors and suppliers who depend on the farm's solvency. From a wider economic perspective, if individual farms are less prone to financial collapse due to market swings, the aggregate agricultural sector becomes more stable, contributing to economic stability. It means fewer emergency government interventions and a steadier supply of agricultural commodities with less extreme price fluctuations for consumers.

Table 1: Farm Sector Financial Position (2025 Forecast)

Indicator	2025 Value	Interpretation Related to Farmers' Financial Decision-Making	Source
Total Farm Sector Debt	~ \$591.8 billion	Debt levels remain high and growing, underscoring the importance of debt management and budgeting skills for profitability.	USDA ERS forecast data (farm sector balance sheet) [58]
Total Farm Sector Assets	~ \$4.42 trillion	Substantial assets can support borrowing, but financial literacy is needed to leverage assets wisely and manage risk.	USDA ERS forecast data [58]
Debt-to-Asset Ratio	~ 13.4%	A relatively stable ratio suggests solvency at an aggregate level, but individual farmers must interpret similar ratios for their own business plans.	USDA ERS forecast data [67]
Farmland Value Trends	Slower growth/modest decline anticipated	Changes in land value affect collateral for loans and financial strategy, making education on asset valuation key.	ABA lender survey, farmland values [68]

Table 2: Farm Loan Delinquency and Credit Conditions (2024–2025)

Indicator	Recent Level /	Implication for Farm Financial Behavior	Source
Commercial Bank Farm Loan Delinquency (Q3 2025)	~ 1.0%	Modest delinquency rates reflect some financial stress; financial literacy can help farmers better forecast cash flows and meet debt obligations.	Federal Reserve data [69]
Commercial Production Loan Delinquency (Q1 2025)	~ 1.45 % (up from ~ 1.03 % in 2024)	Rising past-due loans suggest increasing repayment challenges in some segments; better financial planning may improve debt servicing.	Counterterra Ag Capital report [70]
Ag Bank Loan Delinquency (Q2 2025)	~ 1.3 % across agricultural lenders	Slight credit stress evident even among specialized lenders — highlighting a need for improved risk analysis and budgeting.	Kansas City Fed report [71]
Farm Debt Growth at Ag Banks (2024)	~ 7 % increase	Growing demand for loans underscores the importance of understanding loan terms and strategic borrowing decisions.	Kansas City Fed data [72]

Financial education also promotes resilience by encouraging farmers to build financial buffers. Many trainings emphasize practices like maintaining an emergency fund or keeping working capital above a certain threshold [54, 79, 80]. Farmers with this mindset might retain a portion of profits in good years as reserves, rather than immediately expanding or spending all gains. This buffer can then carry them through lean years, preventing cash-flow crises. Such prudent behavior was often lacking in the periods leading up to past farm crises, where over-leverage and assumption of continued high prices left farmers exposed. Educated farmers are more aware of the cyclicity of agriculture and tend to plan accordingly (e.g., using bumper crop revenues to pay down debt) [81]. A study on rural financial behaviors observed that higher financial literacy is associated with greater savings and precautionary financial planning among farm households, which directly contributes to their long-term sustainability [82, 83].

Another resilience factor is the reduction of loan delinquency and default rates as a result of better financial management [84, 85]. When farmers understand loan terms and the importance of timely repayment (and structure their business to achieve it), they are less likely to miss payments or require restructuring. This was indirectly shown in studies of credit access: once farmers became adept at managing credit, their default risk declined. In fact, one analysis of farm financial stress indicated that improving borrowers' financial skills could be a complement to financial reforms in reducing loan delinquencies [86]. For the broader economy, lower default rates among farmers mean a healthier rural banking sector. Rural banks and the Farm Credit System can remain strong when their farm clients remain creditworthy, preventing the kind of cascading failures seen in the 1980s when thousands of farms went under. Thus, educating farmers is a form of preventative risk management at the system level.

4.4. Addressing Diverse Farmer Needs

The results from literature make it clear that “one size fits all” does not apply to financial education – programs must account for the diversity among farmers. Small-scale and beginning farmers, for instance, often start with lower levels of financial literacy and fewer resources. They benefit greatly from introductory and hands-on training that covers basic concepts of accounting, loan applications, and enterprise analysis. The focus group study of young farmers in Montana revealed that this group prefers interactive learning and networking opportunities where they can learn not just from instructors but also from peers facing similar issues [87]. They value practical examples and farm-specific case studies in education. In response, some extension programs have tailored workshops specifically for beginning farmers, sometimes even creating farmer mentor networks to reinforce learning. By contrast, larger commercial farm operators might already have

some sophistication (or hire professional accountants), so their educational needs might center on advanced topics like strategic financial planning, tax management, or succession planning. Indeed, succession planning (how to transition the farm to the next generation without financial upheaval) is a big area where financial education and estate planning intersect, and many land-grant universities now host seminars on farm succession given the high average age of U.S. farmers.

Another dimension is the cultural and regional differences. In the U.S., some farming communities (for example, historically underserved groups or certain immigrant farmer communities) may have mistrust of formal financial institutions or language barriers [88, 89]. Effective financial education in those cases often requires culturally appropriate delivery – such as bilingual programs or partnering with community organizations. While mainstream literature seldom goes into these details, extension practitioners have noted that trust and communication style influence whether farmers absorb and act on financial advice. Programs like Farm Management in the Midwest have had success by employing instructors who are farmers themselves or who can share local benchmarking data that make the training more relatable [90]. The literature suggests that farmers respond well to education that respects their experience and knowledge, and that positions financial tools as aids to achieve the farmer’s own goals (rather than as outside impositions).

Despite the positive outcomes documented, the discussion in the literature is not without caution. One recurring theme is that the impact of financial education can be hard to measure in the short term. Farm profitability is influenced by many variables (weather, market cycles, policy changes), so isolating the effect of improved financial management is challenging [91–93]. A farmer might take a course and implement better budgeting, yet still see lower profits that year due to a drought – that does not mean the education was ineffective. Long-term studies are needed to truly gauge outcomes like business survival rates or multi-year profitability trends among trained farmers versus control groups. Some authors also question how to maintain the knowledge gained. There is a risk of “one-and-done” workshops having limited lasting effect unless followed up with continual learning or advisory support. To address this, extension services have been moving toward providing ongoing technical assistance after the initial training – for instance, farm financial consultants who can periodically visit farms and help refine their financial plans.

Crucially, the literature and real-world observations both indicate that financial literacy education is a necessary but not sufficient condition for farm success. It equips farmers with tools and awareness, but external factors (like commodity prices or trade policies) still play a huge role. Therefore, one should not expect education alone to overcome systemic issues. However, educated farmers are generally in a better position to adapt to and absorb external shocks. They are the ones who can proactively adjust their businesses when warning signs appear, whereas less skilled farmers might not recognize problems until it’s too late. In light of the rising uncertainties in agriculture – climate change, global market integration, etc. – financial literacy can be seen as part of building overall adaptive capacity in the agricultural sector.

4.5. Implications for U.S. Economic Stability

An underlying premise of this review is that there is a link between farm financial management and broader economic stability. The results support this premise by illustrating multiple pathways through which improved farmer financial literacy can have stabilizing effects. First, at the farm level, we see reduced incidence of financial failures (bankruptcies, forced sales) when farmers manage prudently. While individual farm failures may not shake the national economy, in aggregate they can necessitate large government interventions (for example, emergency disaster payments or debt relief programs). By lowering the probability of financial collapse, education helps reduce the burden on federal safety nets and taxpayers. Second, stable farm businesses contribute to steady employment and input demand in rural areas [94, 95]. Farms that can weather downturns continue purchasing inputs, services, and equipment, which supports local agribusiness jobs. This prevents the domino effect where one farm’s failure can mean lost business for suppliers and potentially job losses in the community.

Third, a financially healthy farm sector underpins food security and price stability for consumers [96, 97]. If many farms mismanage finances and cut production or go out of business suddenly, commodity supplies could tighten and lead to food price inflation. Conversely, well-managed farms are more likely to maintain production even in tough times, smoothing out supply fluctuations. For example, during the 2020 COVID-19 pandemic, farms with stronger finances could pivot or sustain operations better, helping avoid severe food shortages [98, 99]. Lastly, on the financial system side, as mentioned, lower default rates on farm loans keep agricultural credit flowing. Rural banks and the Farm Credit System remain profitable and inclined to lend, ensuring farmers have access to capital. This contributes to the overall stability of the banking sector, especially in regions where farm loans are a significant portfolio component. The synergy between educated farmers and cautious lending can avert the kind of credit crunch that exacerbated the Great Depression and the 1980s farm crisis [17].

In discussion, it’s also worth noting that financial literacy education in agriculture has a policy dimension. Policymakers are increasingly aware that alongside traditional support (subsidies, insurance, etc.), providing knowledge is a powerful tool. Several Farm Bill programs now include funding for farmer training (in topics like risk management) as a preventive strategy. The idea is to make farms self-reliant and better prepared, rather than relying solely on ad-hoc aid. The literature supports that this approach can yield long-term dividends: an investment in education may reduce the need for larger financial rescues later on. There is, therefore, a strong argument to be made for continued or increased public and private investment in farmer financial education programs. The positive results – in profitability, risk mitigation, and resilience – align with goals of agricultural sustainability and economic security.

5. Conclusion

In conclusion, financial management education for farmers plays a pivotal role in maintaining agricultural productivity and profitability amid challenging economic conditions. Over the last decade, U.S. farmers have been tested by rising input costs, heavy debt burdens, and volatile commodity markets, all of which threaten their financial viability. This review has synthesized literature showing that equipping farmers with financial literacy – the knowledge and tools to make savvy financial decisions – can help counter these challenges. Educated farmers are more adept at budgeting and controlling costs, securing and managing credit, and deploying risk management strategies to stabilize their incomes. These improvements at the farm level translate into broader benefits: more robust farm profitability, fewer insolvencies, and a more stable agricultural sector that undergirds rural economies and the national food supply.

All types of farmers, from small-scale beginners to large commercial operators, stand to gain from financial education, though their needs may differ. Formal programs delivered by universities, extension services, and USDA initiatives have proven effective in imparting

critical skills – yet there remains a need to expand reach and overcome barriers to participation. Tailoring program delivery (for example, via online platforms or at seasonally convenient times) and fostering ongoing support networks can enhance the impact of these educational efforts. The literature suggests a few key recommendations moving forward:

- **Integrate Financial Literacy Early:** Incorporating farm financial management into beginning farmer training and even high school or college agriculture curricula can build a strong foundation. Early exposure ensures that new farmers start their careers with good financial habits, improving their long-term success odds.
- **Focus on Practical Application:** Programs should emphasize hands-on learning – using real farm case studies, interactive budgeting exercises, and farm financial software – so that farmers can directly apply concepts to their operations. This practical orientation helps bridge the gap between theory and the farmer’s actual decision-making environmentdcau.ie.
- **Leverage Technology and Peer Learning:** Providing user-friendly financial planning tools (e.g., spreadsheets or apps tailored for farm finances) and facilitating peer group discussions can reinforce learning. Many farmers learn effectively from fellow farmers; peer networks (such as farm business discussion groups) can promote continuous improvement and accountability in financial practices.
- **Target Risk Management Education:** Given the persistent volatility in markets and climate, special emphasis on risk management literacy is warranted. This includes understanding crop insurance options, marketing contracts, and diversification strategies. Farmers who grasp these concepts contribute to a more resilient agricultural sector overallrsisinternational.org.
- **Monitor and Evaluate Outcomes:** To justify and refine educational programs, it is important to continue researching their impacts. Longitudinal studies and follow-ups can identify how financial education correlates with tangible outcomes like profit margins, loan default rates, or farm survival through downturns. This will help policymakers and educator’s direct resources to the most effective interventions.

Ultimately, bridging the gap between farm profitability and U.S. economic stability requires empowering the people who manage farms with the right knowledge and skills. Financial literacy education is a strategic investment in human capital that enables farmers to navigate the economic headwinds they face. A farmer who can interpret a balance sheet, plan for a range of price scenarios, and make informed investment choices is better positioned to thrive – and a nation of such farmers is better positioned to enjoy a stable and prosperous agricultural economy. The evidence reviewed confirms that while farming will always entail risks, improved financial management can be the difference between vulnerability and resilience for both individual farm businesses and the agricultural sector as a whole. By continuing to strengthen financial literacy education through formal channels, the U.S. can support its farmers in sustaining productivity and contribute to the broader stability and security of its economy.

Article Information

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Competing Interests: Authors have declared that no competing interests exist.

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