



Specialty Crop Risk Management

An Issue Paper on the Noninsured Crop Disaster Assistance Program and Whole Farm Revenue Protection Insurance

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This publication was commissioned by AGree to inform and stimulate dialogue about policy reform; it does not represent official AGree positions. The views expressed here are those of the individual authors.

Foreword

Specialty crop farming, with higher value markets and risk-mitigating diversification, offers an attractive option for beginning farmers. With access to crop insurance specialty crop growers and new and beginning farmers can more easily obtain credit to sustain and grow their operations. Opportunities exist to adapt existing risk management policies to support these producers.

By focusing on the Noninsured Crop Disaster Assistance Program (NAP) and the Whole Farm Revenue Protection (WFRP) programs, the paper discusses how improvements to both those programs could create a cascade of benefits to the agricultural sector, particularly for beginning farmers producing fruits and vegetables not currently covered by crop insurance. The paper also discusses changes to the programs in the 2018 farm bill and offers recommendations to strengthen data collection and analysis that can further the development of new risk management assistance for specialty crops.

This paper was written by Cara Fraver, National Young Farmers Coalition; Scott Marlow, Rural Advancement Foundation; and Jonathan Coppess, Coppess Consulting, LLC, with support from AGree. Together, the authors provide perspectives for how the current programs work and issue recommendations for improving the risk management assistance currently available.

AGree offers this paper to foster productive dialogue. While the concepts discussed in this paper are intended to enrich AGree's and others' discussions on food and agriculture policy, they do not represent official AGree positions.

We hope you find this paper to be a helpful resource.

Sincerely,

A handwritten signature in blue ink that reads "Deb Atwood". The signature is written in a cursive, flowing style.

Deborah M. Atwood
Executive Director, AGree

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Executive Summary

Farming is capital-intensive and full of risk, and policies that assist with risk management are considered vital to farm success. Specialty crop farming, with its higher-value markets and risk-mitigating diversification, offers an attractive option for beginning farmers. Diversified specialty crop production systems may also provide environmental and natural resource conservation benefits, but these usually require additional costs and capital. Risk management assistance—such as crop insurance and subsidy programs—is lacking for these specialty crop farmers, however, and this impacts farmers' ability to access sufficient credit, especially operating credit. To date, Congress and the U.S. Department of Agriculture (USDA) have created two tools for these growers; however, low relative participation in these programs raises concerns about paperwork burdens and effectiveness.

Congress created the Noninsured Crop Disaster Assistance Program (NAP) in 1994 to provide disaster assistance—but not crop insurance coverage—for noninsured crops. This assistance was intended to be comparable to catastrophic insurance coverage (i.e., for greater than 50 percent losses). Congress revised NAP in the 2014 Farm Bill by adding a buy-up provision. In the 2018 Farm Bill, Congress went further by incorporating premium pricing into insurance coverage in NAP to better cover actual price risks for fruit and vegetable crops.

Whole Farm Revenue Protection (WFRP) represents a different method for insuring farm risk. Through this program, a single policy covers multiple crops produced by a diversified farm operation by using tax information on income to protect revenue. It was first offered in 1999 as Adjusted Gross Revenue and was revised in the 2014 Farm Bill and renamed Whole Farm Revenue Protection. As crop diversification is itself a risk management strategy, many direct or specialty crop growers consider the cost and complexity of purchasing WFRP coverage as a disincentive, given that the policy only provides a limited expansion of risk protection. However, WFRP does fill an important gap and provides an additional risk management tool for specialty crop farmers. Its use has been increasing, and the USDA's Risk Management Agency incentivizes agents to sell policies.

This issue paper explores important background perspectives on beginning and specialty crop farmers and sets forth recommendations for improving the risk management assistance available to them. For example, we recommend efforts focused on education and outreach regarding the most recent revisions to NAP contained in the 2018 Farm Bill, as well as data collection, especially for premium prices (e.g., surveying markets for prices). We also recommend ramping up efforts focused on data and actuarial analysis to further the development of crop insurance policies for those specialty crops lacking insurance. Finally, we recommend developing further revisions to NAP, including a whole farm revenue option limited to beginning farmers.

Introduction

Farming is a capital-intensive business in which weather can devastate yields and markets may fail to deliver profitable prices. These factors underscore the intrinsic risk of farming and the necessity of risk management tools. Hundreds of crops and thousands of farmers, however, cannot access a vital risk management tool: crop insurance. Only crops with sufficient production history for their farm units¹ have crop insurance policies available for purchase, which limits the availability of traditional crop insurance options for crops such as fruits and vegetables, which are generally referred to as “specialty crops.” The impact of this lack of crop insurance options may be especially acute for young and beginning farmers who are starting businesses based on specialty crops and/or specialty markets. They struggle to access adequate credit in part because they cannot buy adequate risk management policies.

An important option for farmers of crops that lack crop insurance coverage in the United States is the Noninsured Crop Disaster Assistance Program (NAP), which originally provided catastrophic (i.e., more than 50 percent loss) coverage for those crops. This high threshold for assistance and the infrequent payments were generally viewed negatively by farmers, which limited farmer participation and also contributed to the Farm Service Agency (FSA) of the U.S. Department of Agriculture (USDA) giving the program reduced priority.

With the passage of the Agricultural Improvement Act of 2018 (i.e., the 2018 Farm Bill), Congress made changes that improved risk management for specialty crops such as fruit and vegetables and for smaller-scale and diversified operations. These changes built on improvements to NAP in the 2014 Farm Bill and indicate Congressional intent that NAP serve an increasingly larger role in risk management. In fact, the enhancements contained in the 2014 Farm Bill continue to serve as an administrative tool for the USDA to collect data to develop additional crop insurance products, and improve existing ones, for specialty crop farmers. As changes improve the program, specialty crop growers are more likely to purchase the product and gradually change their negative perception of it. This paper reviews the history of NAP and looks for strategies to further expand the improvements Congress has made.

Better risk management tools, including not only NAP but also the Whole Farm Revenue Protection (WFRP) program, would create a cascade of benefits to the agricultural sector, particularly for beginning farmers setting out to produce fruits and vegetables. These improvements would increase access to credit, further market diversification, and enable more widespread adoption of conservation practices. As specialty crop growers receive crop insurance coverage through WFRP, they would be able to access traditional or federal credit options and thereby free up revenue to reinvest in their businesses. For example, they would be able to purchase additional land, adopt conservation practices, scale their operations, diversify their production, and start new enterprises.

Background: Issues for Beginning Farmers and Specialty Crop Producers

Beginning farmers—including those returning to family farms, entering farming or ranching for the first time, or rising through farm laboring positions—often face the historically unique circumstances of selling higher-value products while also needing access to higher-value markets. Adequate risk management strategies for these farmers and policy tools that assist with risk management can be vital in helping them obtain the necessary capital and for surviving the inevitable challenges relating to weather and markets. Access to crop insurance and the credit it unlocks frees farmers to choose the enterprises and production methods that they see as viable and responsible, rather than keeping them tethered to the suggestions or limited visions of lenders.

Higher-value markets for agricultural products generally have descriptors such as “organic,” “pasture-raised,” “direct-to-consumer,” or “specialty crops.” Farmers producing for these markets are generally able to receive a significantly higher price than for conventional wholesale crops. In the case of direct-to-consumer sales, in particular, farmers can assert greater selling power and set the price of their products. While in wholesale pricing, the buyer sets the price, in farmers markets or community-supported agriculture (CSA) sales, the farmer controls the price, providing increased price stability for the grower. In addition, the farmer garners all of the income from the sale, and feeds the community without middlemen, processors, or other intermediaries. The benefits of direct-to-consumer marketing come with added effort and new risks, however; this type of marketing requires significant expenses and is susceptible to risks that could impact revenue, such as inclement weather affecting attendance at farmers markets. Also, direct market sales frequently involve perishable crops, and smaller farms do not always have sufficient storage or refrigeration infrastructure to mitigate the losses incurred from weather-impacted markets.

Beginning farmers are generally defined in crop insurance as “a farmer or rancher who has not actively operated or managed a farm or ranch with a bona fide insurable interest in a crop or livestock as an owner-operator, landlord, tenant, or sharecropper for more than 5 crop years (7 U.S.C. §1502(b)(3)).

While direct marketing provides significant benefits for farmers and ranchers through increased profitability, the benefits also extend beyond their business. Studies show that most of the income from local sales remains in the local economy, and that farms or ranches that sell locally create four times as many jobs per \$1 million earned than farms that do not sell locally (Feenstra et al. 2003; King et al. 2010).

In addition, increases in income may permit farmers to invest in land ownership and stewardship, while lower returns may require all farm income to cover operating or living costs. Conservation and stewardship practices, such as cover cropping, reduced tillage, and crop diversification, present financial challenges, as the likely return on investment for these practices may be 5 to 20 years. Secure land tenure is essential to making these investments. Higher net incomes result in more secure land tenure that, in turn, allows growers to employ long-term conservation strategies. Not only are these conservation practices related to land ownership, they directly tie back to the higher-value markets themselves, as consumers in these markets tend to demand sustainability and responsible production practices and are willing to pay a premium for products that meet these standards. In order to access these markets, farmers or ranchers may want to diversify their crop selection, employ certifiable conservation practices to differentiate themselves, or be able to satisfy the demands for sustainability from their customers. Decreased transportation requirements are another environmental benefit of direct marketing.

- **Local farms & local economies:**
- **One study found that shifting a quarter of agriculture production to local production created 27,664 jobs and generated \$4.2 billion in economic activity and \$126 million in state and local taxes.²**
- **Another found an \$800 million contribution from a 25% shift to local food purchases.³**

Specialty crop farmers also have broad direct impacts in their communities. For example, direct marketing feeds the members of the community without middlemen, processors, or other intermediaries. Experience has shown that local farms contribute more than food, helping to drive job growth and economic activity in the local community.

More profitable, sustainable farms may allow the next generation of farm children to return home to farm, where they will set up shop in their rural communities; more income per acre creates the potential that they can farm alongside the older generation. Higher-value markets can also provide some risk management benefits to beginning farmers, if they can get started. Diversification of crops or markets helps mitigate risk through multiple crops in a growing season and a wider array of potential revenue streams. The overall benefit of diversification can include protection from revenue losses, as a loss in one crop or market—such as production losses from a weather event, failure of a marketing channel, or a commodity price drop—can be balanced by a success with another crop. In their first years, beginning farmers are trying to scale their businesses, are most highly leveraged, and have the greatest learning curve. Diversification can help them manage some risks, and higher-value markets can help them keep more of their incomes. However, the federal tools that assist conventional and established farmers are lacking, and this policy deficit directly reduces the access to capital available to beginning farmers.

The choices that beginning farmers make in their first few years set the trajectory for their farm businesses. For example, if a beginning farmer believes that the only viable opportunities involve investing in large-scale equipment or facilities—as is the case with contract poultry or hog operations—they will become locked into those investments, and therefore, that system of production. They also will be subject to the requirements of vertically integrated companies and contracts and to equipment that depreciates quickly. Yet, when a farmer considers starting an enterprise and needs significant capital, they may be encouraged by lenders to enter into contracts such as these, in order to get access to capital.

By comparison, farmers running specialty or direct-to-market farms have significantly lower start-up costs, but their growth may be slower. They retain decision-making power and can have lower debt-to-income ratios. A significant hurdle, however, is that there are few options in terms of policies and assistance with risk management. In addition, they are likely to struggle to access capital as easily as the farmer following a more conventional production and marketing system. Lenders are less familiar with direct-to-consumer sales and may view them as riskier—a perspective magnified by the relative lack of risk management policies. Unfortunately, the gaps in federal policies may multiply the disincentives for beginning farmers who might otherwise end up contributing to the local economy and following a conservation-minded method of farming. At the very least, the limited risk management policy options can send negative signals to those considering starting a farm, possibly deterring or limiting some who would otherwise begin an operation.

Improved risk management options would provide a series of benefits. A key benefit would be in helping beginning farmers better secure operating credit, allowing for more flexibility in cropping mix decisions and possibly increasing their scale of production. For example, insurance can allow farmers to more easily use their crops for collateral rather than, or in addition to, other assets such as land or equipment. This both extends borrowing capacity and can help reduce the risk of loss on those other assets. This can be especially important for beginning farmers. Land is often heavily leveraged as

collateral for both ownership and operating debt. Risk management programs increase the likelihood that farm income is available to make debt payments. By helping improve access to capital—especially operating credit—crop insurance also improves farmers’ ability to increase scale, and greater scale can lower risk and improve farmers’ ability to compete in more markets.

Natural resource conservation and stewardship could also benefit from improved risk management options. With increased access to available credit for production costs, farmers may have funds available for conservation practices. Practices such as cover crops may take many years to show returns on yield, and, even then, the correlation may be difficult to prove. So the return on the investment is very long. In a low-cash situation, the additional costs for long-term conservation practices must compete with core production costs and are less likely to receive lender approval.

Beginning farmers, direct markets, land ownership, and conservation practices all nourish one another, but the federal signal on risk management policies is critical. Currently, higher-value markets are often underserved by crop insurance. A National Young Farmers Coalition national survey showed that only 5 percent of young farmers used the USDA Risk Management Agency’s crop insurance programs (Ackoff et al. 2017, 55). Making sufficient risk management assistance—especially crop insurance—available to these farmers could ensure that more farmers choose to start these valuable and

potentially conservation-minded farms. The farmers who begin these businesses need adequate risk management tools to succeed, and with success, they can contribute to the health of consumers, the strength of local economies, and the betterment of the environment. Much depends on their ability to access sufficient credit for higher-value, conservation-focused production.

The Noninsured Crop Disaster Assistance Program

Congress created NAP in 1994 as part of a larger effort to reform crop insurance and risk management tools for farmers (Chalise et al. 2017; Lee et al. 1997). NAP was originally designed to provide disaster assistance—but not crop insurance coverage—for noninsured crops; assistance was intended to be comparable to catastrophic yield coverage (CAT) available through crop insurance but required an area-wide loss of at least 35 percent for any crop before producers could be eligible for assistance (Kelley 2001; Lee et al. 1997). The CAT-level coverage generally requires an individual yield loss of 50 percent or greater, which is covered at 55 percent of an average market price for the crop (Hungerford et al. 2017). Congress eliminated the area-wide loss requirement in 2000 and added a requirement that farmers pay a service fee for the program (Kelley 2001). The table below provides a simple example comparing corn revenue insurance to NAP catastrophic-level coverage for watermelons.

Illinois Corn Revenue Insurance Example		NAP CAT Example	
APH (bu./acre)	181.9	38,333	Watermelon; approved yield (lbs./acre)
Projected Price (4/bu.)	\$3.75	\$0.12	Watermelon; average market price (\$/lb.)
Renueve (\$/acre)	\$682.13	\$4,600	Expected Revenue (\$/acre)
Insure Acres	80	10	Reported Acreage
Total Expected Crop Revenue	\$54,570	\$46,000	Total Expected Crop Revenue
Total Insured (80% Revenue Protection)	\$43,656	\$12,650	Total Covered at Catastrophic Level (50/50)
Actual Yield (65% loss) (bu./acre)	82	17,250	Actual Yield (65% loss) (lbs./acre)
Harvest Price	\$3.00	\$0.07	Actual Price (\$/lbs.)
Actual Revenue (\$/acre)	\$245.57	\$1,138	Actual Revenue (\$/acre)
Actual Total Crop Revenue	\$19,645	\$11,385	Actual Total Crop Revenue
Total Indemnity	\$24,010.80	\$1,265	NAP Indemnity
Farmer Premium (\$/acre)	\$5.93	\$250	Service Fee, NAP (250/crop)
Net Indemnity	\$23,536	\$1,015	Net NAP Indemnity
Total Revenue=Crop+Net Indemnity	\$43,182	\$12,400	Total Revenue=Crop+Net Indemnity
Total Revenue/Expected Revenue	79%	27%	Total Revenue/Expected Revenue

Congress revised NAP in the Agricultural Act of 2014 (the 2014 Farm Bill), adding a buy-up provision⁴ that permits farmers of noninsured crops to purchase higher levels of coverage under NAP for yield losses between 50 percent and 65 percent (in 5 percent increments) with losses paid at 100 percent of the market price (Hungerford et al. 2017). In addition to the service fee, farmers electing to purchase buy-up coverage in NAP are required to pay a flat premium equal to 5.25 percent but not to exceed \$6,562.50 per farmer. The limit on premiums is a result of the payment limitation on NAP assistance of \$125,000 per farmer; the flat premium compares to insurance premiums that increase with coverage levels. Beginning farmers, as well as those qualifying as underserved, limited resource, or socially disadvantaged, are exempt from the service fee and pay only 50 percent of the buy-up premium. A USDA analysis found that total applications for NAP in the first two crop years after the 2014 Farm Bill more than doubled (from 66,030 applications to 137,821) and buy-up coverage accounted for 16 percent of total applications but nearly one-third of fruit and vegetable applications in 2015 (Hungerford et al. 2017). The table below provides a simple example comparing corn revenue protection to the NAP buy-up (65/100) for watermelon.

The Agriculture Improvement Act of 2018 (the 2018 Farm Bill) reauthorized the programs in the 2014 Farm Bill and included further revisions to NAP. Specifically, the 2018 Farm Bill increased the payment limit for buy-up coverage to \$300,000, combined with a slight increase in the service fees. Most importantly, the 2018 Farm Bill added the use of premium pricing for crops—such as contract prices or local, organic, or direct-market prices—at the buy-up coverage levels, if elected by the producer. This makes coverage more applicable to producers of specialty crops that are sold for premium prices.

In addition, the 2018 Farm Bill requires the FSA to coordinate with the Risk Management Agency (RMA) and other USDA agencies on data collection and sharing, to ensure that participation data are collected in a form useful to support the development and expansion of federal crop insurance to new crops and counties. Finally, the 2018 Farm Bill made the buy-up provision a permanent authorization, moved NAP into the commodities title (Title I) of the bill to provide more equitable treatment with the other disaster assistance programs, and required the FSA to create a more streamlined submission process equivalent to the process for microloan operating loans.

Finally, in addition to providing assistance for losses to farmers of crops that do not have insurance, NAP also serves as an important step in the development of actuarially sound insurance policies for those crops. Revisions to the program in the 2014 and 2018 Farm Bills provide strong indications of this Congressional intent. For example, the buy-up coverage added in 2014 more closely aligns NAP with insurance coverage, and the provisions on data collection and coordination will help to provide the data necessary for actuarial analysis to develop new policies for noninsured crops. Because specialty crops are not typically traded on open exchanges, the collection of pricing data for them is especially helpful. The addition in the 2018 Farm Bill of premium prices will also help in the development of insurance policies that better cover actual price risk for fruit and vegetable crops. Finally, continued increases in NAP participation will help drive crop insurance policy development as well, providing more data and demonstrating a market need.

Illinois Corn Revenue Insurance Example	
APH (bu./acre)	181.9
Projected Price (4/bu.)	\$3.75
Revenue (\$/acre)	\$682.13
Insure Acres	80
Total Expected Crop Revenue	\$54,570
Total Insured (80% Revenue Protection)	\$43,656
Actual Yield (65% loss) (bu./acre)	82
Harvest Price	\$3.00
Actual Revenue (\$/acre)	\$245.57
Actual Total Crop Revenue	\$19,645
Total Indemnity	\$24,010.80
Farmer Premium (\$/acre)	\$5.93
Net Indemnity	\$23,536
Total Revenue=Crop+Net Indemnity	\$43,182
Total Revenue/Expected Revenue	79%

NAP Buy-up Example	
38,333	Melons; approved yield (lbs./acre)
\$0.12	Melons; average market price (\$/lb.)
\$4,600	Expected Revenue (\$/acre)
10	Reported Acreage
\$46,000	Total Expected Crop Revenue
\$29,900	Total Covered Buy-up (65% yield; 100% price)
17,250	Actual Yield (65% loss) (lbs./acre)
\$0.07	Actual Price (\$/lb.)
\$1,138	Actual Revenue (\$/acre)
\$11,385	Actual Total Crop Revenue
\$18,515	NAP Indemnity
\$1,570	Premium (5.25%; max \$6,562.50); Service Fee, NAP (\$250/crop)
\$16,945	Net NAP Indemnity (max. \$125,000)
\$28,330	Total Revenue=Crop+Net Indemnity
62%	Total Revenue/Expected Revenue

Issues for NAP

A decades-long stigma of poor service and lackluster coverage still haunts NAP, but recent changes provide a path for improving on this legacy. The implementation and operation of NAP resides within the Farm Service Agency, the agency that typically handles subsidy programs, rather than the Risk Management Agency, which operates crop insurance. One result of this division is that the process of applying for NAP coverage is quite different from purchasing crop insurance from an independent salesperson with an economic interest in selling the product. Farmers report that the forms are confusing, and staff are unfamiliar with the product—an unfamiliarity that may be reasonable given how few policies are sold per year.

A related result of the division is the legacy of service provided by the FSA—a legacy that could be a detriment to taking full advantage of the flexibilities and new options created by Congress in recent Farm Bills. Overcoming this legacy will require efforts to reverse decades in which nearly the entire FSA system has primarily served a specific segment of agriculture; the effort will require training, data, new voices on county and state committees, and a shift in some aspects of existing agency culture. For example, NAP creates a challenge for the USDA in that it is an insurance product that has very little production or pricing data that is clean, accurate, and usable. In many circumstances, FSA state committees have the flexibility to use whatever information and data they can find, but they are often hesitant to take advantage of this flexibility and use all information available for fear of a negative audit or other repercussions from USDA headquarters (or Congress). Staff implementing the program at the county and state levels are therefore reluctant to take some calculated risks that would result in better assistance to the most vulnerable farmers.

The response to NAP after passage of the 2014 Farm Bill, however, shows the potential of the program. As noted previously, the availability of buy-up coverage helped participation in NAP to more than double. For a diversified farming operation, the availability of up to \$125,000 in potential indemnities, combined with

the risk management offered by diversification, could help with loan approval, available capital, and operating flexibility. Given the expanded indemnity limits in the 2018 Farm Bill (to \$300,000) and the implementation of premium pricing, it's expected that NAP participation will continue to grow, especially for the buy-up coverage option. As discussed in the recommendations below, the most immediate needs for the program are further investments in education and outreach to farmers.

Whole Farm Revenue Protection

More than two decades ago, in response to ad hoc Congressional efforts to assist farmers in the wake of natural disasters, policymakers attempted improvements in crop insurance to ensure a more stable safety net. Examples of these efforts include passage of the Crop Insurance Reform Act of 1994, the Federal Agricultural Improvement and Reform Act of 1996, and the Agricultural Risk Protection Act of 2000 (Makki 2002).

The majority of insurance in the Federal Crop Insurance Program provides coverage for individual crops. With whole farm insurance, which represents a different method for insuring farm risk, a single policy covers multiple crops produced by a diversified farm operation by using historical income tax information to protect revenue (Chalise et al. 2017; Turvey 2012). This type of insurance was first offered as a pilot program in 1999 and called Adjusted Gross Revenue (Makki 2002). It was expanded to a full revenue insurance product in 2001, and the RMA added Adjusted Gross Revenue Lite (AGR-Lite) in 2003. Congress revised this version of insurance in the 2014 Farm Bill, renaming the policy Whole Farm Revenue Protection. The table below provides an example of WFRP as compared with a standard, commodity-specific insurance example for corn.

Farm revenue protected by WFRP is the lower of the expected revenue based on the current-year farm plan or the five-year historic income adjusted for growth (Shields 2015). The maximum total farm income

Illinois Corn Revenue Insurance Example		Whole Farm Revenue Insurance Example	
APH (bu./acre)	181.9	\$138,392	5 Years Schedule F Income, Average (2011-2015)
Projected Price (\$/bu.)	\$3.75	1.3310	Index Factor (optional)
Revenue (\$/acre)	\$682.13	\$184,200	Indexed Average Revenue (optional)
80% Coverage Guarantee	\$545.70	\$147,360	80% Coverage Guarantee (minimum 3 commodities)
Actual Yield	150		
Harvest Price	\$3.50		
Actual Revenue	\$525.00	\$106,514	Actual Revenue
Indemnity (\$/acre)	\$20.70	\$40,846	Indemnity
Farmer Premium (IL)	\$5.93	\$15,913	Average Farmer Premium (2018 National)
Net Indemnity (per acre)	\$14.77	\$24,932	Estimated Net Indemnity

that can be protected is \$8.5 million, with coverage ranges from 50 to 85 percent. The WFRP program also provides for limited replant coverage for annual crops and the ability to consider market readiness costs within the insured revenue and expenses.

Through the WFRP program, farmers typically file a report of their intentions for production in the insurance year that includes expected acres, yield, commodity value, and total value (Williams et al. 2014). They also have to submit five years of continuous and verifiable Schedule F (or equivalent) tax filings that document historic revenue, though beginning farmers can submit as few as three years of historic revenue. They also have to file inventory records at the beginning of the insurance year, including what is held in storage and accounts payable and receivable. From these records, the critical values are calculated. Administrative convenience is one reason given for the use of Schedule F taxable income upon which to base whole farm policies (Dismukes and Durst 2006). The use of Schedule F can also help clarify coverage of only on-farm income rather than off-farm income, but growers still need to separate income from insurable crops and income from added-value foods or custom work, which cannot be insured.

For the economy, the taxpayer, and the government, WFRP has benefits: Whole-farm insurance based on revenue as reported on taxes not only provides coverage for multiple crops, but it can do so at potentially lower costs (Makki 2002). It is considered less market-distorting because it is less likely to influence a farmer's

decision on what to plant (as well as reducing impact on other farm management decisions), while still helping to cover risk.

For farmers, whole farm insurance has significant advantages as well. It can better account for diversification at the farm level. It also spreads risk among multiple crops as compared to commodity-specific coverage. Moreover, because it provides coverage for a farm's revenue, it offers the ability to cover livestock and livestock products. With the flexibility to cover more crops, as well as livestock, whole farm insurance can be potentially more attractive for small, diversified operations or for those seeking to further diversify their operations. Overall, whole farm insurance should also be less expensive for the farmer, with lower premiums.

Issues for WFRP

WFRP has challenges, which may explain why it has not been as highly adopted as its architects would have imagined; participation in both AGR and WFRP has been small relative to the size of the specialty crop industry and as a percentage of total liability in the crop insurance program (Chalise et al. 2017). Because protection is based on the income of the specific farm that is purchasing the product, farmers need to show at least three years of data in the form of Schedule F forms in order to prove their own farm income. Due to the application dates as compared with tax dates, however, beginning farmers and ranchers need four years to compile these records. Until then, WFRP is

out of reach for them. In addition, while taxpayers with farm income report it on a Schedule F, many farmers have low or negative farm income, which complicates coverage (Dismukes and Durst 2006).

Whole farm insurance has a number of complexities that make it potentially difficult for farmers to use. The records and application can feel complex, especially if the farm has a very high level of diversification.

Applying for whole farm insurance involves an analysis of risk for multiple crops during a growing season and may require adjustments for changes to a crop plan from season to season. It may also require farmers to adjust their methods of recordkeeping: Whereas most farms use cash accounting, whole farm insurance requires tax information on an accrual accounting basis (Dismukes and Durst 2006). Under cash accounting, farm income is recognized for tax purposes when the money is received or paid; this flexibility can impact the level and variability of both gross and net income for tax purposes. For example, farmers may be able to accelerate or defer income and expenses to avoid higher marginal tax rates (Dismukes and Durst 2006). That kind of acceleration or deferral is not always possible on an accrual accounting basis.

Another challenge for WFRP is the question of whether a farm's historical income accurately represents expected income in the insurance year (Williams et al. 2014). The WFRP program allows farms to plan for a 35 percent growth rate from year to year. While 35 percent may seem very high for some farmers, others may almost double the size of their income every year in the early years, so they are unable to insure the revenue they expect to earn. Additionally, the calculation of future revenue is based on an average of previous years, plus the up-to-35-percent growth rate. But for a growing farm, if they have grown 35 percent in previous years, this average will leave them drastically underinsured for the year in question.

Furthermore, diverse farms are already managing their risk through the diversification of crops and markets and may be highly unlikely to ever see a revenue loss that would qualify them for an indemnity payment.

These complexities, plus a perception among many farmers that the indemnities are too small, are likely part of the reason that WFRP has been underused by the types of farms for which it was created.

Finally, with whole farm policies being a newer form of insurance, research, education, and outreach has been limited, as compared to crop-specific policies (Williams et al. 2014).

Conclusion and Recommendations

Based on the research and experience described in this report, the report authors offer several recommendations. The recommendations are broken into three categories based on timing: near term, medium term, and long term.

1. Near-Term Recommendations: Education and Outreach for NAP

Given the experience with increased participation after the 2014 changes to NAP, the further improvements in the 2018 Farm Bill will hopefully increase participation again. As a result, our near-term recommendations focus on efforts to follow up with more education and outreach to specialty crop producers, especially young and beginning farmers, regarding the 2018 improvements. Initial education and outreach should focus on the buy-up provisions in NAP and how they can help farmers manage risk and better access capital. Increased outreach should help improve participation in the program, deliver risk management for farmers, and provide additional valuable data.

The statutory improvements to NAP should incrementally popularize the program, and demand for the program could drive the Farm Service Agency's county staff toward deeper literacy and increased outreach. In a more proactive approach to improve the outreach and use of NAP, the FSA should evaluate the forms and processes it uses, to ensure that growers are not dissuaded from using NAP simply due to obtuse procedures or historical difficulties. In order for NAP to truly provide a useful and effective on-ramp to crop

insurance, including WFRP, the paperwork and user experience need to be streamlined and reconciled with other crop insurance approaches. This could be part of implementation of the 2018 Farm Bill, and the results could be reported to Congress with suggestions or recommendations for improvement.

NAP policies have generally been made available in case of a lack of other available crop insurance policies, by crop, but they could be made available based on underserved markets or insurance models. For instance, in some states, NAP policies have allowed for price selections for direct market prices and could be made available for additional underserved markets. While direct market prices have been made available under NAP for limited commodities in a few states, FSA should expand efforts to provide direct market price selections, making both the criteria for establishing the price selection, and the opportunity for states to request them, more publicly available.

Data collection should be another priority. Increased participation in NAP will provide valuable and important data, and efforts should be made to collect it. This is especially the case for the implementation and operation of the new premium price provisions in NAP. One example would be surveying at farmers markets for prices received. Data collection could help with the development of additional, actuarially sound insurance policies. Data could also be collected regarding farmer practices, such as the adoption of conservation practices and experiences or lessons learned.

While there is a need for general education about WFRP—including expanding existing RMA education and outreach programs that prioritize partnerships with organizations that could provide resources and assistance—outreach alone will not solve the issue of WFRP usage. The RMA should consider addressing the issues limiting WFRP participation. For example, the Farm Bill conference managers instructed the RMA to “solicit input from the diverse group of producers currently participating in WFRP and take appropriate steps to streamline, add flexibility or tailor program

rules to diverse producers’ needs and circumstances.” Therefore, the RMA should investigate challenges regarding the complexity of WFRP applications, accrual accounting, filing IRS Schedule F forms, and production recordkeeping. The RMA could help develop online resources and web-based tools that could be valuable resources with these complexities to busy, diversified farmers.

One concrete option for improving education and outreach for NAP and WFRP would be coordination on outreach, education and data gathering with programs focused on farmers markets. Such efforts could use funding and resources provided by the Farmers’ Market and Local Food Promotion Program (7 U.S.C. §3005) and operated by the Agricultural Marketing Service.⁵ For example, coordination could happen with FSA county office employees that operate NAP as well as with crop insurance agents who are selling or interested in selling WFRP. These efforts could also provide opportunities for further surveys, focus groups, and information gathering with respect to conservation practices and experiences.

2. Medium-Term Recommendations: Data and Analysis

Presuming increased participation in NAP and the collection of valuable data, our medium-term recommendations are to conduct actuarial analysis to help further the development of crop insurance policies for those specialty crops, markets, and farm populations that are currently lacking insurance. Additional research can drive insurance policy development, such as policies that better account for the unique risk issues of diversified operations or research on conservation practice adoption and successful management of diversified farm operations.

In addition, the RMA and the FSA should do better at sharing ongoing monitoring of both NAP and crop insurance data (WFRP and other policies), including participation and loss ratios. A goal would be to identify issues for further study or crop insurance policy development or revision. Through

better collaboration between the two agencies, NAP can serve as a testing and proving ground for crop insurance policies to address the needs prioritized in the Farm Bill. As discussed below, NAP could also serve as a proving ground with respect to the adoption of conservation practices.

NAP administrators should meet with the RMA to understand the RMA's priorities for crop insurance development. They should provide records identifying specific commodities or markets in which NAP participation suggests a demand for improved crop insurance policies, and then prioritize the development of NAP policies that could, over time, establish a data basis for high-priority crop insurance policy development. These efforts should be reported to Congress with suggestions or recommendations for further improvements.

In addition, the RMA should better evaluate the calculations that undergird how WFRP addresses the growth of insured farm operations. Importantly, this should include addressing past disaster years in the averaging of past revenue. As discussed above, there are concerns about how the averaging of past years and the limit of a 35 percent growth rate impacts the insurability of farmers, especially those growing their businesses rapidly. This work should also evaluate whether the actual reduction in risk from basing coverage on annual gross income is reflected in the price.

Our final mid-term recommendation relates to conservation practices, including both the adoption and successful management of those practices. The Farm Bill continues to encourage the use of crop insurance incentives to encourage conservation practices such as the use of cover crops. These efforts are likely to be concentrated with standard row-crop farmers such as those growing corn, wheat, and soybeans. There exist opportunities to use NAP to develop and test conservation assistance, adoption, and management models for diversified, specialty crop, and/or beginning farmers. Work with the FSA could

include exploring conservation incentives for NAP participants, such as a pilot program for beginning farmers. Incentives could include education and outreach—as well as data collection and sharing—as described in the short-term recommendations above. Other creative ideas could look to yield and premium price provisions in NAP that could be used to provide incentives for, or help with issues concerning, conservation practices. For example, the FSA could explore using the “approved yield” determinations as revised by the 2018 Farm Bill to provide a transitional yield in the case of a farmer adopting a conservation practice that might result in lower yields. Another option could be to explore premium pricing for those farmers selling at a premium based on conservation practices or sustainable methods.

3. Long-Term Recommendations: Whole Farm “On-Ramp” in NAP in the 2023 Farm Bill

Our long-term recommendations focus on further revisions to NAP and WFRP that could be considered in the next Farm Bill debate. In addition to the education, outreach, data collection, and other efforts in the short- and medium-term recommendations, specific recommendations for revisions to NAP and WFRP could be submitted to the House and Senate Agriculture Committees for 2023 Farm Bill development. For example, the 2018 Senate Farm Bill included a provision that would pay incentives to insurance agents for selling WFRP policies. The next Farm Bill could revisit that incentive and base it on survey work with insurance agents in key areas to determine what might prove to be a more effective incentive.

In addition, the next Farm Bill could make further revisions to NAP to build upon the expansions in the 2014 and 2018 Farm Bills. First, Congress could increase the buy-up coverage level from 65 percent yield loss (at 100 percent of the price) to as high as 75 percent yield loss (at 100 percent of the price). This would make NAP coverage more attractive to farmers and better able to respond to losses, as the

coverage level would effectively provide the farmer a 25 percent deductible on the policy. Another simple fix in the next Farm Bill would be for Congress to further integrate NAP as part of the disaster relief system. If a county has been declared a disaster county, then all producers of crops in that county that do not have a crop insurance policy available to them could be automatically enrolled in NAP and eligible for catastrophic-level indemnities.

To address the accounting, reporting, and recordkeeping challenges of WFRP, particularly for beginning farmers, advocacy organizations have suggested a program “on-ramp.” Several of the challenges are caused by the beginning farmer establishing recordkeeping and accounting procedures that are not appropriate to WFRP participation and are not easy to change. A WFRP on-ramp would provide benefits in the years preceding WFRP eligibility and would require or encourage development of the accounting, records, and reporting systems needed to participate in WFRP from the beginning of a farmer’s career. These systems would include accrual-based accounting, filing of the IRS Schedule F, and production records suitable for WFRP participation. The farmer could then have a seamless transition into WFRP coverage when the three- or five-year requirement was met, without having to change existing accounting or recordkeeping systems.

NAP serves as an ideal program for an on-ramp to insurance, potentially WFRP. The 2023 Farm Bill could revise NAP in a way that would create a whole farm revenue option similar to the 2014 addition of buy-up coverage. Under this revision, farmers could have the option of coverage for the entire farming revenue of the farm, in lieu of crop-by-crop coverage. In another option, the program could use documented prices instead of personal history. And, the program could be

limited to beginning and young farmers, to help them develop the information needed to eventually purchase WFRP (and to eliminate or reduce premium costs). Because WFRP provides coverage for enterprises that NAP does not, specifically animals raised for meat or fiber, an on-ramp through NAP would permit these enterprises to use the whole-farm option, while continuing to limit them for other NAP options. Much depends, however, on the specific design of a whole-farm NAP. Further work should be done to analyze the potential options, such as whether the program should be at a catastrophic level or include buy-up options, fee waivers, and premium reductions (or elimination), and whether representative farms could be used to establish production histories for beginning farmers without records and history. Finally, administration of the program should be evaluated to make it easier to transition from NAP to WFRP, and from the FSA to the RMA, including all options for improving availability of both NAP and WFRP, as well as outreach, to underserved areas and producers.

In addition to an on-ramp through NAP, the Farm Bill could provide cost-share benefits for the costs of setting up and establishing the appropriate accounting or recordkeeping systems on the farm. Creating a whole farm option in NAP, especially for beginning farmers, would provide them with access to risk management benefits earlier in their farming careers, during the crucial high-risk years. It would also provide reasons for, and experience with, establishing the proper accounting and recordkeeping protocols, as well as increasing incentives to file an accurate IRS Schedule F. Finally, such an on-ramp could help beginning farmers create recordkeeping systems that would also benefit their return-on-investment analysis, participation in effective food safety monitoring, and access to credit.

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Endnotes

1. Actual production history yield (APH) is used to set the guarantees under most of the Federal Crop Insurance Corporation-backed insurance plans.
2. <https://community-wealth.org/strategies/panel/urban-ag/index.html>
3. <https://www.ucsusa.org/food-agriculture/strengthen-healthy-farm-policy/growing-economies-connecting-local-farmers-and-large-scale-food-buyers#.XDKwa817mUk>
4. Historically, NAP covered losses on eligible crops in excess of 50 percent of expected production. The amount of payment has been 55 percent of the NAP market price. A major change to the NAP program in 2014 was buy-up coverage, which covers 100 percent of the market price, and up to 65 percent of yield.
5. <https://www.ams.usda.gov/services/grants/fmpp>

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