Disaster Programs
And the Changing Face
Of Agriculture
In North Carolina

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RAFI-USA
RAFI cultivates markets, policies and communities that support thriving, socially just and environmentally sound family farms.
# Table of Contents

Acknowledgements .......................................................................................................................... 2  

Chapter 1: Introduction and Background. ....................................................................................... 3  
  Introduction ................................................................................................................................. 3  
  Background ............................................................................................................................... 4  
  Changing the View from the Kitchen Table ............................................................................. 6  

Chapter 2: Changes in North Carolina Agriculture ........................................................................... 7  
  The Decline of Percentage of Farm Income from Commodity Crops ..................................... 7  
  The Rise of Specialty Crops ...................................................................................................... 11  
  The Rise of Production Contracts ......................................................................................... 13  
  A Value-Added Future ........................................................................................................... 15  
  Conclusion ............................................................................................................................... 19  
  Value-Added Products and the Tobacco Transition .............................................................. 20  

Chapter 3: Responding to Disaster ................................................................................................ 21  
  Types of Disaster Loss ........................................................................................................... 21  
  Federal Disaster Response ..................................................................................................... 23  
  Types of Disaster Assistance Programs ............................................................................. 25  

Chapter 4: Crop Insurance and the Risk Management Agency .................................................. 27  
  Crop Insurance Background ................................................................................................. 27  
  Crop Insurance and Changes in Agriculture ...................................................................... 29  
  Pilot Whole Farm Revenue Programs .................................................................................. 31  
  Securing the Transition: McAdams Farm and Risk Management ....................................... 35  

Chapter 5: Disaster Programs ......................................................................................................... 38  
  Types of Programs .................................................................................................................. 38  
  Standing Programs ................................................................................................................. 38  
  Ad Hoc Programs .................................................................................................................. 43  
  Administrative Assistance ................................................................................................. 43  
  Standing and Ad Hoc Programs and Transitions in Agriculture ....................................... 43  
  A Tale of Two Farms: Disaster Programming on Conventional and Value-Added Farms ........ 45  

Chapter 6: Conclusion and Recommendations ............................................................................ 47  
  The Challenges .................................................................................................................... 47  
  Recommendations ............................................................................................................... 48  
  Towards a Promising Future ................................................................................................. 53  

End notes ...................................................................................................................................... 54  

Appendices .................................................................................................................................... 56
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I am also honored and grateful to be able to draw on the experience of Benny Bunting for this publication. Benny is a farm advocate who has saved literally thousands of farms over the 20 years that he has been at it through deep knowledge of farm programs, especially credit and disaster programs. What many of us talk about in the abstract; how to save the family farm, how to make family farms more viable, Benny does in specifics; how to save *this* family farm and make *this* family farm more viable.

Over the last few years, we have partnered with a range of organizations to bring information on disaster assistance programs to farmers and farm advisors, and I thank all of them. I would especially like to thank Farm Aid for their willingness to dive in and do something, and their support when we dived in.
Disaster preparedness and response is a constant aspect of North Carolina agriculture. North Carolina experienced 28 agricultural disaster or emergency declarations between 1980 and 2004, including droughts, floods, killing frosts, and Hurricanes Floyd, Fran, Hugo, Ophelia, Isabel, Bertha, Irene, Ivan, Frances, Dennis and Bonnie. Yet today federal disaster relief programs protect less farm income and fewer farm assets in North Carolina than they did in 1980. If Hurricane Floyd were to happen today, by all likelihood, North Carolina farmers would receive less, not more, assistance from the federal government. This gap has serious ramifications for North Carolina farmers and the North Carolina rural economy. The gap is not because programs have changed. Instead, North Carolina agriculture is changing, and the programs have not kept up.

North Carolina has a uniquely diverse agricultural sector. We have farms of all sizes, with operators of diverse ethnicities, growing many different kinds of crops. Agriculture remains our single largest industry. However, this once-thriving diversity is in danger. North Carolina lost more farms in 2006 than any other state in the nation. Changes in federal peanut and tobacco programs, vertical integration and corporate concentration are all introducing new challenges for farmers.

For the last 20 years, North Carolina’s agriculture has been going through a structural change. The role of traditional farm commodities such as tobacco, cotton and peanuts has decreased. Farmers increasingly rely on income from livestock and other products grown under production contracts, and specialty crops, including fruits, vegetables, greenhouse, nursery, Christmas trees and turf, are a far greater percentage of farm income than ever before.

This change will only accelerate in the future as farmers expand into rapidly-growing value-added markets, which bring greater value back to the farm because of specialized production, processing or
marketing practices. Leading state agencies, universities and foundations assist and encourage farmers who are transitioning to value-added markets. Farmers are finding innovative ways to lead in an evolving industry.

All of these changes have huge implications for disaster preparedness and assistance. These newer crops have far lower levels of coverage, and new ways of growing and marketing have little, if any, protection from disasters. As more farmers meet the challenges and opportunities of North Carolina’s changing agriculture, the gap between farmers’ needs and disaster policy will only widen. Unless we make immediate changes to disaster programs, each hurricane, drought and frost will do more than destroy crops; it will take more of North Carolina’s farmers off the land.

The changes in North Carolina agriculture vividly illustrate changes that are happening more gradually nationwide. This publication looks at the reasons for the growing gap between disaster policy and farmers’ needs and how it can be closed. It starts with an overview of the changes in North Carolina in the last 20 years, seen through the lens of disaster preparedness and recovery. Next, it examines how the three main levels of disaster assistance programs – crop insurance, standing disaster programs and ad hoc disaster programs – are addressing or failing to address these changes. Finally, it makes recommendations for a disaster policy that would allow North Carolina farmers to create a thriving, diverse and resilient agricultural economy.

**Background**

The federal government has long recognized that farming is inherently risky, that it is in the country’s interest to maintain the agricultural sector, and that the government has a role in mitigating risk to keep farms in business.

Federal involvement in agricultural risk management originated during the 1930’s. Farmers saw their soil blown away and their prices fall to rock-bottom. In response, the government created commodity and land conservation programs to mitigate the risk of price fluctuations and reduce the risk of future disasters.²

Even with these programs, farming remains a risky business. A recent study by the USDA Economic Research Service shows that farm income is far more variable than either off-farm income of the same households or of income as a whole.³ The question remains not if the government should help farmers mitigate risk, but how.

Weather in particular causes the agricultural community to operate in an environment of predictable unpredictability. We know that disasters will happen, but we do not know when, where, or how severely they will hit. We know that each disaster can cause huge agricultural damage and threaten the livelihood of thousands of farmers. We also know that it will have immediate, mid-term and long-term effects on both the individual farm and on the larger rural community. We know disaster programs will demand that farmers be patient, understanding and well-organized at a time when their lives have been suddenly plunged into chaos.

We also know how federal disaster response will play out. Many federal disaster programs must be re-created and re-authorized with each disaster, which makes them susceptible to the political environment of the time. Certain crops or certain states might receive more aid because of political considerations instead of their greater financial need. Each time programs are re-written, the county level administrators who manage the programs must be retrained,
and a new process of outreach has to occur. As a consequence, the delivery of disaster programs is often a slow and time-consuming process. For example the sign-up period for several disaster programs that address damage from Hurricanes Katrina and Rita opened September 10, 2007, more than two years after the storms.

Disaster programs, despite their shortcomings, work very well for traditional commodity crops. Uniform crops that have long-term federal production records and are sold to wholesale markets have a series of programs to address their disaster losses. That is not to say that disasters are not a significant challenge to commodity farmers. Federal programs can provide coverage of up to 95 percent of farm income, which sounds great until you realize that the uncovered five percent is more than double the estimated one-to-two percent net return in agriculture.

Emerging and value-added farm products are far less well covered. For instance, a farmer who grows conventional corn will find six different crop insurance products augmented by several disaster programs to meet their needs. However, a farmer who grows organic sweet corn for sale at the local farmers market will find fewer programs, and those programs will cover a much smaller percentage of their expected income.

The disparities in protection have effects that resonate throughout the entire farm financing system and must be taken into account when addressing agriculture as an economic development engine. Programs like crop insurance assure lenders that participating farmers can repay operating loans whether or not a disaster occurs, and that assurance lowers lenders' risk as well, allowing them to lend more freely. Long experience has shown that federal programs, when they are effective, allow farmers to survive disasters with their farm and their finances intact.

Conversely, shortcomings in disaster programs can hurt farms whether or not a disaster occurs. For example, farmers who are not eligible for effective crop insurance have more difficulty getting operating loans. Without the safety of crop insurance, bankers are less likely to lend and more likely to require additional collateral. Farmers can typically borrow less and must often use personal property, such as the family home, for collateral. They go into a disaster...
on shakier footing than their more conventional counterparts. When post-disaster aid passes them by, these farmers must struggle, often unsuccessfully, to keep their farms.

### Changing the View from the Kitchen Table

Disaster policy becomes real over the kitchen tables of farmers across North Carolina as farm families lay out their budgets and their savings, their losses, and their expected payments from crop insurance or other government programs to see whether or not they will be able keep farming. To these families, the obscure requirements of policies and regulations mean the difference between losing and preserving their future on the land.

In September of 1999, I drove down NC 97 through Edgecombe and Halifax counties. It was the only road open into that part of the state in the days following Hurricane Floyd, and I was checking on farm families that I had been partnering with on a series of research projects. As the land rose almost imperceptibly, everything seemed as it should be with crops in the field, laundry out to dry, and few obvious scars of the storm that had raged a few days before. But as the land fell, the area resembled a battlefield. Cars were upended in ditches, houses were destroyed, fields laid waste. The line between destruction and normalcy seemed random, following contours of the land that went unnoticed in normal times.

Since 1999, we have learned a great deal about disaster and recovery. We have learned that the line between normalcy and destruction is razor-thin. So is the line between recovery and ruin. It can depend on one rise in the land or one line of fine print.

Over the next year, I worked with a series of partners to provide information to farmers and farm advisors about the range of available disaster programs. We became familiar with the look of mingled disbelief and disappointment on farmer’s faces at the end of classes on federal disaster programs. “Is that all the help there is?,” they ask. Tragically, many of the most innovative farmers who had pioneered new ways of producing and marketing saw huge amounts of money being allocated for disaster recovery, but little or none of it for them.

After each disaster, farmers spend late nights at the kitchen table, poring over piles of paperwork. Each year, more kitchen-table work sessions end with the decision to leave the farm. This publication deals with policy and regulations, but its ultimate goal is to change the view from those kitchen tables. Finding and closing gaps in disaster preparedness policy can save farms.
Chapter 2
Changes in North Carolina Agriculture

In the last 20 years, North Carolina has seen some of the most radical changes in agriculture since reconstruction. The federal programs for peanuts and tobacco have changed, leading to significant drops in the price of those crops. Corporate concentration and vertical integration have reduced competition, leaving farmers with fewer options for processing and marketing.

At the same time, new opportunities are opening in value-added markets. Consumer demand is rising for farm products that are differentiated because of the way they are grown, marketed or processed. Organic vegetables, free-range meats, farmers’-market produce, local jams and salsas, and other products like them are becoming popular in homes, schools and restaurants, and provide opportunities for farmers to transition into new enterprises. These markets represent major economic development opportunities for North Carolina farmers and communities.

In this section, we will look at three major trends in North Carolina agriculture: the shift in the source of farm income, the increase in the use of production contracts, and the increase in markets for and production of value-added products. In each section, we will also look at ways in which each trend affects how we approach disaster assistance and preparedness.

The Decline of Percentage of Farm Income from Commodity Crops

Since 1980 the source of North Carolina farm receipts has changed significantly. Crops such as tobacco, which were the traditional keystones of North Carolina agriculture, are still significant but no longer carry the monolithic importance of the past. North Carolina farm income is more likely to come from diverse crops with different marketing structures and different production systems.

While overall acreage planted in crops remained relatively stable (figure 1), its financial importance to North Carolina’s farms has significantly decreased. In 1980, crops comprised over 60 percent of all North Carolina farm income, with tobacco alone accounting for over 30 percent (figure 2). By 2004, crops comprised just 34 percent of farm sales, just above what tobacco alone was 24 years earlier.

The fall in the financial importance of crops as a whole has been largely due to the plummeting relative importance of commodity crop
income in North Carolina. The percentage of North Carolina's farm income from federal commodity crops fell from approximately half of all farm receipts in 1980 to just less than 20 percent in 2004. With the passage of the Fair and Equitable Tobacco Reform Act of 2004, tobacco stopped being a commodity crop, and the percentage of North Carolina farm income garnered from commodity crops dropped to near 11 percent. Some commodities have dropped in actual income. For example in 1980, tobacco brought in $1.1 billion in farm receipts but brought in just $407 million in 2005. In other cases, crops have maintained their income, but have dropped in relative importance as the value of other crops has increased. In 1980, soybeans accounted for $280 million in farmer income, or 7.8 percent of all farm receipts. In 2003, soybeans accounted for $305 million in farm income, but that number corresponded to just 3.4 percent of total farm receipts.

As the percentage of income from commodity crops has fallen, income from livestock and specialty crops has increased (figure 3). Poultry and hogs alone account for almost 60 percent of farm receipts. Specialty crops now rival the importance of traditional row crops. For example, Christmas trees account for more of North Carolina's farm income than peanuts, wheat, rye or any single fruit or vegetable.

New Challenges

Commodity crops are the easiest crops to create programs for and, not coincidentally, have the most effective and most widely used disaster and risk management programs. Commodity crops have several advantages when it comes to programming. They are priced and traded uniformly, no matter where or how they were grown. They are nationally important. They also have a long historical record and take up a large amount of acreage. This means that the risks and profits associated with commodity crops are predictable, widely acknowledged and well documented. More diverse and differentiated farm products, such as greenhouse products or certain livestock, do not have the uniformity, the national significance or the long histories that commodities have. Consequently, they present new challenges for disaster programming.

Actuarial data

Crop statistics become significant in two ways. Broad data on yield and price across the country are used in assessing risk and loss and form the actuarial tables that are key to...
Figure 1: Total crop acreage in North Carolina, 1982 - 2002

Figure 2: Percentage of North Carolina farm receipts, 1980 - 2005

Figure 3: Percentage of North Carolina farm receipts, 1980-2005
the creation of programs. Specific records of a farmer’s production history are then used in implementing the program and determining eligibility and levels of program benefits.

A long-term federal record of yields, prices, and losses makes calculating actuarial tables for commodity crops fairly simple. In 15 minutes, a person can find the corn yield and price history of any given area of the country going back into the last century. This extensive history allows the people who create insurance policies and disaster programs to predict losses fairly accurately and to set the prices and terms of those policies at a cost-effective level.

Since the long-term histories of production and price that exist for commodity crops do not exist for many specialty and value-added crops, creating insurance products for these crops is more difficult. Without new data collection, obtaining the actuarial data that allow policy makers to calculate risk and develop sound insurance policies becomes virtually impossible.

This history does not exist for many specialty crops of growing importance in North Carolina, especially in situations like greenhouse or nursery production, where the crop consists of diverse plants with diverse uses and values. Because of this absence of information, creating cost-effective insurance policies and disaster programs is extremely difficult.

**Production histories**

An individual farmer’s disaster program participation and payments are usually based on existing Farm Service Agency records of a farmer’s production history. This works well for commodity-based farms but is much more challenging for other farm enterprises. Farmers who grow commodity crops document production acreage and yield automatically as a part of the commodity program participation. Having a pre-existing federal record of crop yield and acreage allows these farmers to obtain crop insurance or disaster payments with relative ease.

Unfortunately, Farm Service Agency records vary widely for livestock, specialty crops and value-added products, and are, for many, nearly non-existent. Farmers growing noncommodity crops without effective risk management programs can record their production in the local FSA office down to a fairly small acreage. However, farmers rarely do this because the process can take precious time and offers uncertain benefits. The more diversified the farm the more difficult the documentation process. A farmer growing diversified, value-added crops may spend half a day creating an FSA record of his production. As we will see, disaster programs offer little or no relief for these farms, whether or not they have production records, so many farmers simply elect to skip the process altogether.

**Crop timing**

One of the fundamental differences between commodity crops and specialty crops or livestock is the duration of the production cycle. Disaster programs often assume a yearlong production cycle and do not take into account the needs of farms that have very short or very long production cycles.

In commodity agriculture, a crop disaster usually destroys the year’s production, and the farmer has until the following spring to clean up and prepare for the next production cycle. The next cycle is usually relatively unaffected by the disaster.

Many non-commodity operations, such as confinement livestock production, greenhouse production and specialty vegetable production, may have five or six production cycles in a year. Therefore the time out of production can mean a significant loss of income. Months spent
cleaning up a field, rebuilding a barn, waiting for a drought to end, or waiting for a disaster payment to come can affect more than one crop cycle.

In other crops, such as Christmas trees or many nursery crops, the production cycle lasts for several years. In these situations, documenting the loss and assigning a value to lost products is far more complicated, since income losses may last for years. For example, if a farmer loses a crop of apples in a freeze, disaster programs can pay back the loss based on the value of apples. However, a farmer who loses sapling apple trees that will not fruit for another three years will find that it is much more difficult for disaster programs to effectively calculate, document and address his loss.

Changes in investment

In traditional commodity crop agriculture, the land itself, which is fairly impervious to lasting disaster damage, is the primary means of production. Disaster policy was designed with these operations in mind. Many farm enterprises now rely on structures such as greenhouses and poultry barns, yet such structures are rarely covered by disaster programs. Private insurance is available for farm structures but, unlike crop insurance, is not federally subsidized.

By 2005, however, four of the top five farm products in North Carolina - broilers, hogs, greenhouse and nursery plants, and turkeys - required significant investment in structures. Greenhouses, poultry barns and other structures are very vulnerable to storm damage. This vulnerability endangers the production capacity itself, not just the existing production, and often causes significant harm long after the disaster. Repair to production structures, however, is rarely included in disaster programs and, without federal subsidy private casualty insurance, can be prohibitively expensive.  

The Rise of Specialty Crops

Specialty crops make up an increasingly large percentage of North Carolina’s agricultural products. Specialty crops include fruit, vegetables, Christmas trees, and greenhouse and nursery plants. Greenhouse and nursery plants alone brought in $872 million in 2005, almost twice the amount of income they produced in 2002. Greenhouse and nursery production constitutes the fourth-largest source of income for North Carolina farmers. Blueberries, apples, strawberries, cucumbers, sweet potatoes, tomatoes and other fruits, vegetables and nuts are also increasingly important. In 2005, fruit, vegetable and nut production represented five percent more of North Carolina’s agricultural income than it did in 2004.

New Challenges

Specialty crops provide North Carolina’s farmers with diverse sources of income in a changing economy. However, the diversity of locations, crops and markets leads to new programming challenges.

Local importance

While the importance of specialty crops to North Carolina farm income is quite clear, national acreage statistics paint a very different picture. According to the 2002 Census of Agriculture, all U.S. vegetables for sale comprised 3.6 million acres of production. That is quite a sum.
However, corn alone comprises almost 75 million acres. Corn, soybeans and cotton together are almost 160 million acres.

What this means is that the effects of disaster programs for commodities are felt much more widely across the country than are programs for specialty crops. It also means that there is far more information available on the range of yields and prices of commodity crops because each year provides a much higher number of yield per acre data points, and crop yields and prices are recorded automatically as a part of participation in commodity programs. As we shall discuss later, this information is crucial to the quantification of risk and the development of cost-effective disaster programs.

**Crop diversity**

Specialty crops as a category are also far more diverse than are commodities. While there are commodity programs for some fairly small-acreage crops, such as mohair and lentils, for the most part, commodities are uniformly produced across a large acreage. Within specialty crops, there is a wide range in crop uniformity and in the level to which the crop is treated as a commodity. For instance, field tomatoes are largely treated as a commodity, have price and yield data collected by USDA, and have crop insurance programs available. On the other hand, small specialty crops, like different types of greens or specialty melons, are sold in wholesale markets but have no crop insurance and are covered at far lower levels under the Non-Insured Disaster Assistance Program.

**Market diversity**

Specialty crops are also more likely to be sold through diverse markets and to have regional significance. Very little field corn or cotton will make its way into farmers markets or restaurants, but a significant percentage of North Carolina specialty crops will. For instance, the vast majority of North Carolina strawberries are sold into fresh markets, and many are sold direct through farmers markets or through pick-your-own operations. Federal programming, however, is far more likely to be based on the large industrial production of strawberries that takes place in California or Florida, which has very different costs and prices. While collards are certainly significant for North Carolina both culturally and economically, they are not significant when looking at the national picture.

There is also a far greater diversity of markets within individual crops. Nursery plants are treated as a single crop for the purposes of national agricultural statistics, but are actually a wide variety of plants with a wide variety of markets and prices. Azaleas being produced for wholesale markets and large home improvement stores will have a very different income potential than specialty trees produced for direct sales or annual transplants, but all specialty crops make up a growing percentage of North Carolina’s farm income. The diversity of crops and markets presents challenges for disaster programming.
are lumped under this category. The same is true for greenhouse production. Both are crops with very high growth rates over the last 20 years.

All of these aspects lead to major challenges in programming for disaster assistance and creating a disaster safety net.

The Rise of Production Contracts

As farm income has changed, so has the way many farmers market their products, especially livestock. New ownership patterns are emerging that make sale and ownership quite complex, and generally reduce the producers’ access to the disaster safety net.

Most importantly, production contracts are becoming common. While farmers have used marketing contracts for generations, the shift to production contracts is fairly recent and has significant ramifications for disaster programs. For a deeper description of the difference between production and marketing contracts, see the USDA Economic Research Service description in the box to the right.

Production contracts have come to dominate several major North Carolina industries. According to the 2002 US Census of Agriculture, almost 100 percent of the 739.6 million broilers and other meat chickens raised in North Carolina were grown under production contracts. Similarly, 96 percent of hogs raised in North Carolina were either produced under production contracts or by the company itself.

The preponderance of production contracts in the poultry and hog industries has particular significance for North Carolina because these industries represent a huge and growing sector of the state’s agricultural economy. Between 1980 and 2005, income from livestock, poultry and dairy rose from 39 to 67 percent of farm receipts. Hogs, broilers and turkeys, which were responsible for the majority of this climb and in 2004 comprised over 58

Understanding Production and Marketing Contracts

Marketing contracts focus on the commodity as it is delivered to the contractor, rather than the services provided by the farmer. They specify a price or a mechanism for determining the commodity’s price, a delivery outlet, and a quantity to be delivered. The pricing mechanisms sometimes limit a farmer’s exposure to price risks, and they often specify a premium to be paid for commodities with desired levels of specific attributes. The farmer retains control over major management decisions and hence retains more autonomy than is available under production contracts.

Under a production contract, the farmer provides services to the contractor, who usually owns the commodity under production. For example, contractors in poultry production usually provide chicks to the farmer along with feed and veterinary/transportation services. The farmer then raises the chicks to maturity, whereupon the contractor transfers them to processing plants. Contractors often provide detailed production guidelines, and farmers retain far less control over production decisions. The farmer’s payment resembles a fee paid for the specific services provided, instead of a payment based on the market value of the product.

percent of North Carolina farm income, are now grown almost entirely under production contracts.

While production contracts have come to dominate the hog and poultry industries, they have also begun to crop up elsewhere. The 2002 Census of Agriculture documented 60 farms raising grains and oilseeds under production contracts. There is also anecdotal evidence of nursery crops being grown under production contracts.

Production contracts are not the only new patterns of ownership to appear in recent years that affect access to disaster programs. Recent peanut contracts are neither marketing nor production contracts. Under the current commodity marketing assistance loan programs, if farmers are unable to obtain a higher price, they turn their crop over to the government for the loan rate but retain the right to buy back the crop from under loan. Recent peanut contracts are options contracts that transfer the right to buy back the peanuts from the government to the company. Instead of buying directly from the farmer, companies can then wait to buy until right before processing, thereby saving storage costs. Options contracts make it difficult to determine the actual price of the peanuts, since it is the option to buy and not the peanuts themselves that are sold.

In a few cases, farmers have participated in innovative vegetable contracts where a buyer purchases tomatoes still in the field and supplies the harvesting labor. In one case, tomatoes in the field had been contracted in this way, but were destroyed by a hurricane before harvest but after payment. It was then unclear who owned the tomatoes, and therefore who was eligible for disaster payments.

**New Challenges**

If the farmer does not own the product the nature of financial risk associated with natural disasters changes, and the possibility of a farmer’s being paid for lost production is reduced. Simply put, almost all disaster programs pay the owner of the animal or crop but make no separate provisions for the producer. In a traditional system of ownership, payment for time and inputs invested is covered by payment for the loss of the animal. However, for livestock grown under a production contract, and therefore for nearly all of the hogs and poultry produced in North Carolina, this is not the case, and these damages must be addressed separately. In past disasters, some poultry companies have chosen to compensate farmers for lost flocks based on their production averages. This, however, differs between companies and sometimes between areas within the company.

In some instances, federal disaster policy has responded to these changes by changing definitions of ownership and contracts, adding complexity.
to the situation. For example, in an effort to make policy accommodate options contracts, a March 2007 USDA finding allowed peanut crop insurance providers to accept options contracts as sheller contracts, and to use the sum of the option payment and the marketing assistance loan payment as the price in calculating indemnity.\textsuperscript{7}

This complexity is likely to increase in the future. In standard crop insurance, farmers are paid based on the value of what they would have sold if the disaster had not happened, based on their production history. Under production and option contracts, the farmer does not sell the product, and therefore there is no value to assign to the farmer’s product and no record of production other than that of the company. This makes the creation of risk management policies for these operations very challenging. There is currently no crop insurance program for any farm products, even commodities, grown under production contracts.

Another challenge is that a provision in most livestock production contracts states that farmers bear the responsibility for disposing of animal mortality in the case of a disaster or of losses during production. With facilities that house thousands or even hundreds of thousands of animals, this can be a very costly proposition. The public has a major stake in proper disposal, because animal mortality is a health and environmental hazard if improperly disposed of.

A Value-Added Future

Value-added farm products are products that have extra value because of the way they were grown, processed or marketed. They represent the most rapidly growing sector of agriculture. These products increase the farmer’s return per acre over that of wholesale commodity crops in three ways. First, the farmer can carry the product further into the marketplace, garnering a greater share of the retail dollar, as with farmers markets or direct sales to restaurants. Second, farmers can increase the value of the product itself, either through timing, as with greenhouse tomatoes available during the winter; production practices, as with organic produce or grass-fed beef; or through the uniqueness of the product, as with specialty melons. Finally, farmers can increase the value of the product through processing, as with bottled milk or cheese, jams and jellies from fruit, or pre-washed salad mix.

We have no mechanism for determining the value of direct market and value-added products grown and sold in North Carolina. The data is not collected. However, the signs of growth are all around us. Organic produce, once the purview of small natural food stores, is now seen in major grocery chains, and Walmart has announced a major expansion of their organic product sales. Because the USDA records some limited statistics on organic food, we know that the organic market has grown between 17 and 20 percent each year since 1990.\textsuperscript{8} Grocery stores and food processors are beginning to purchase organic food from overseas because domestic farmers cannot keep up with consumer demand.\textsuperscript{9} Value-added meats, like pastured pork, free-range chicken and grass-fed beef, are being advertised on table displays in restaurants across the state. North Carolina has added at least seven new farmstead cow creameries and a series of goat creameries in the last five years. Nationally, the number of farmers markets grew by 79 percent between 1994 and 2004.\textsuperscript{10}

The importance of value-added products is also evident in the focus that they are being given by agricultural leaders across the state. Increases in value-added and specialty crops are a major priority for agricultural development in North Carolina. Golden LEAF and the North Carolina Tobacco Trust Fund Commission, funded through the tobacco master settlement agreement to address issues associated with the loss of tobacco income, have made value-added
agriculture and enterprises targeting alternative crops, livestock and aquaculture high priorities in their funding for agriculture. North Carolina State University and North Carolina A&T State University have both initiated programs and projects designed to assist farmers in moving toward alternative, niche market enterprises. These programs represent a major investment of state resources in helping farmers transition to new crops, new markets and new marketing opportunities.

**New Challenges**

Agricultural innovation, even innovation that taps into promising and growing markets and that reduces disaster vulnerability and potential damage, is often penalized by the structure of disaster programs and program development. As these markets continue to grow and mature, they provide unique challenges and opportunities for risk management programs.

**Price and production history**

First and most importantly, the challenges of production and price history that are true of specialty crops are doubly true of specialty markets. The actuarial tables that are the basis for insurance programs do not exist for crops not marketed through wholesale channels. Risk management programs require extensive histories of production and liability for their administration and budgeting. The new enterprises that many farmers are being encouraged to enter into are valuable because they are new, and because there have not been the numbers of farms doing the same thing that is required to develop the needed data.

**Market diversity**

Second, because these markets are new and diverse, providing for their needs is often beyond the capacity of existing federal programs. Value-added enterprises are often tailored to the environmental, climatic, social and economic peculiarities of their hometowns. State and local governments and the nonprofit sector may be better able to meet the specific needs of farmers.
in their area, at least until the federal programs are able to develop adequate programs for those farms.

**New definitions of risk management**

Third, capitalizing on the disaster-management opportunities presented by value-added agriculture will require a redefinition of what disaster management policy means. For instance, as far back as the Dust Bowl, government agencies understood that production practices had a significant role in determining the effect of natural disasters. Many of the conservation programs that are still in effect were created to prevent a repeat of the disaster of the Dust Bowl. Conservation programs, in a sense, perform a risk management function. Yet current policy and programming does not address or reward conservation as risk management.

**Diversity of needs**

Fourth, the value-added sector involves farms of many sizes and styles, each of which has different risk management needs. Very small farms may be able to manage their way out of most disasters, but mid-size farmers growing on a larger scale often require operating loans and are less resilient to disasters. The organic market is increasingly demanding organic commodities and wholesale production that require larger economies of scale. Often policy that works for a 5-acre, farmers market organic vegetable operation is completely inadequate to the needs of a 200-acre organic farm that sells to chain grocery stores or to the needs of a grass-fed beef producer.

**New Opportunities**

Many value-added practices actually reduce risk. These practices present opportunities for programs to encourage diverse types of risk management.

**Diverse systems**

Diversity can reduce a farm's vulnerability to disaster. Planting corn varieties with different maturities spaces out tasseling times and reduces susceptibility to drought. Planting a variety of crop types means that what ruins one crop may boost another's success; a drought is disastrous for corn, but actually improves the quality of peppers and tomatoes. Many small-scale producers use crop diversity as a form of risk management.

**Intensive management**

Small and diverse operations are often intensively managed as well. Farmers who can dedicate the needed time and resources to each acre can manage their ways through many disasters by
practices such as irrigating, mulching or planting fast-growing crops that are suited to that month's weather or can make up for a lost crop.

**Decentralized systems**

Local sourcing, processing and sales can also have an impact on an area's ability to survive a disaster well. Geographic concentration of infrastructure, the distance that products are transported and many other aspects of agriculture may have significant effects. For instance, farmers who schedule plantings and harvests in order to sell every week at the farmers' market can better survive the loss of crops during one or two weeks than farmers who harvest and sell once or twice a year. The destruction of a central processing complex can affect the income of farmers miles from the disaster who rely on that infrastructure to get their products to market. Decentralized processing mitigates this risk.

**Resistant systems**

Other practices increase the resistance of the farm's ecological system. For instance, specific breeds of crops or livestock may be chosen because of their ability to thrive despite drought, flood, or whatever disasters most often affect those farms. Research has shown that increased organic matter in soils helps mitigate the risk of both drought and flood. Organic matter facilitates water infiltration, reducing runoff, and holds moisture in the soil. Organic residue left on the soil surface reduces soil temperature and water evaporation. Using some organic practices, no-till agriculture, and other techniques can help farmers increase soil fertility and water retention. For example, in 1997, RAFI worked with a group of farmers in Halifax County, N.C., who were developing no-till peanut production. In spite of warnings from peanut specialists that no-till peanuts couldn't be done, a small group of farmers developed methods that minimized tillage and maintained a significant amount of residue on the soil throughout peanut production. That year happened to be a drought year, and the no-till producers were the only ones in their area not to suffer significant peanut losses.

The understanding of the relationship between production practices and disaster preparation has not translated into change in disaster programs. Because of the lack of data, innovative production techniques that reduce risk are often treated as increasing risk under crop insurance and disaster programs. Unquantified risk is seen as increased, even infinite risk. Organic producers are provided conventional crop insurance (compensating for losses at conventional prices) but must pay a 5 percent surcharge because organic production is perceived as more risky. The no-till peanut producers, for example, were initially denied crop insurance because no-till was not seen as a standard practice for peanuts. Only through significant protest and help from a local extension agent were they able to maintain their crop insurance. New production and marketing practices are creating opportunities for more effective, systemic
on-farm risk management. These opportunities, and the ways they can be integrated into risk management programs, still need to be explored and developed.

**Conclusion**

As North Carolina’s agricultural economy adapts to new products, markets and patterns of ownership, disaster programming faces new challenges and opportunities. It met the needs of North Carolina farmers in the past, but today it leaves many farmers without adequate disaster protection. The more a farmer adapts, the less coverage programs provide.

The next chapter will examine some of the kinds of losses that farmers, traditional or transitioning, experience. It lays out the process of federal disaster response and shows how that process affects the transitions in North Carolina’s farm economy.
Value-Added Products and the Tobacco Transition

For many farmers, transitioning to value-added products is simply a matter of numbers. Many mid-scale farms have been kept in business by tobacco income. Tobacco is grown and marketed as a row crop but returns net income like a specialty crop, often at 10 times the return of other commodity crops like corn or soybeans. The high per-acre value of tobacco is largely responsible for the unusually large proportion of small and mid-sized farms in North Carolina.

Since 1997, North Carolina farmers have lost about $800 million in tobacco income. Payouts from the Fair and Equitable Tobacco Transition Act of 2004 will give farmers $390 million, less than half their lost revenue. By the time the buy-out program finishes, five out of every six farmers who grew tobacco in North Carolina will be looking for another way to make a living.¹³

As tobacco revenue and production has fallen with the end of the tobacco quota system, farmers have sought out ways to replace that income. For small and mid-size farms to stay in business, farmers must seek out crops that produce a profit per acre similar to tobacco. No conventional row crop can produce this return, and therefore farmers must turn to specialty and value-added farm products. The transition to specialty and value-added crops means a significant loss in disaster coverage.

Tobacco has one of the most extensive farm safety nets, with crop insurance available to cover 95 percent of anticipated income. Many of the specialty and value-added enterprises to which farmers transition are covered under the Non-insured Disaster Assistance Program, which covers just 27 percent of anticipated income. In this way, the tobacco transition has very significantly increased the disaster risk for many North Carolina farmers.
Chapter 3
Responding to Disaster

Since 1954, North Carolina has seen 35 major disaster declarations, including 16 hurricanes or tropical storms, tornadoes, ice storms, freezes, droughts and severe storms (Appendix A). In coming years, climate change may bring even more frequent and severe disasters. The impact of each disaster on the state, the community and the farm is determined by more than just wind speed or rainfall. The kinds of damage caused and the kinds of available disaster assistance are the major factors that determine how well farms survive a disaster.

Types of Disaster Losses

Kinds of losses can vary widely depending on the nature of the disaster and on the nature of the farm enterprise. Based on RAFI’s experience, farm disaster losses can be roughly grouped into the following categories:

**Crop loss**
The most obvious type of damage is the loss of the crop in the field. Losses can range from a month’s worth of greens to a year’s worth of corn to Christmas trees that have taken five years to mature.

**Asset loss**
The second type of loss is the loss of farm assets like structures or equipment. Depending on the type of enterprise, these losses can be more or less damaging, and can range from large losses like barns or tractors to relatively small but potentially crucial assets like generators.

**Cost of clean up**
Post-disaster clean-up can be costly. It can entail clearing fallen trees and branches from fields, roads and ditches or hauling off the remains of collapsed farm structures. One of the most expensive and most important clean-up problems is livestock mortality. Many types of disasters can result in large numbers of dead animals, and disposing of carcasses in a cost-effective, timely and environmentally sound way is a major challenge.

**Loss of the means of production**
One of the most devastating losses is loss of the means of production. For row crop producers, the land is the major means of production and is seldom damaged. For other enterprises, however, the means of production can be greenhouses, poultry houses, fruit trees or breeding flocks. In these cases, the loss can have long-term ramifications.

Crops such as fruits and means of production such as fruit trees can both fall victim to frosts and other disasters. As farms diversify, so do types of damage.
Loss of unused inputs
A wide range of inputs can be ruined by disasters, destroying important investment that is not addressed in the valuation of the crop. These include feed, seed, fertilizers and others.

Loss of investment in the crop
In general, investment in the crop is addressed in the valuation of the crop loss; for instance, the value of immature soybeans would include the costs that have been invested into that crop at that point in the season. In some situations, however, especially when the producer is not the owner of the crop, as happens under production contracts, these inputs are not included in the valuation of the crop or are not addressed in compensation.

Loss of industry infrastructure or markets
Sometimes losses within an industry, separate from the specific losses on the farm, have huge effects on the farm enterprise. In these cases, farmers who are able to continue to produce in the days following a disaster are unable to sell their crop. For instance, following Hurricane Katrina, dairy farmers in Mississippi were able to keep milking their cows. However damage to the power grid meant that they were unable to refrigerate their milk, and damage to bottling plants meant that the companies were unable to pick up the milk, and it all went to waste. Farmers in New Orleans saw the destruction of one of the most vibrant farmers markets in the country, and a huge loss of markets beyond their control.

Loss of time
With annual row crops, disaster losses mean that the farmer starts over the following year. However many enterprises, such as mixed vegetables, greenhouse/nursery, and contract livestock have multiple production cycles per year. Disasters often cause a significant delay in the return to production, reducing the number of production cycles in that year and cutting income.

Loss of resiliency
The loss of resiliency is often the least obvious, but can be one of the most insidious losses in a disaster situation. When faced with a disaster, a farmer’s immediate reaction is often to do whatever it takes to get back into production. This often includes maximizing available credit, emptying savings and retirement accounts, using unsecured debt such as credit cards, and borrowing against all accumulated assets. This situation severely limits the farmer’s ability to weather any other loss, either personal or weather related. In many cases, getting back into the
field requires going in to debt that will demand high levels of income to pay back, and any production loss in the following years, for whatever reason, can end the farm. Disaster losses frequently continue to affect farms three, five, or even ten years after disaster.

**Disaster Loss and Transitions in Agriculture**

Different types of disasters cause different types of loss. For example, a drought may destroy a crop in the field but is unlikely to damage farm buildings or assets. On the other hand, high winds associated with an early-season hurricane may destroy buildings and machinery but leave low-growing crops such as peanuts or cucumbers relatively intact. Because disaster programs were developed specifically for producers of commodity crops, they cover the kinds of loss that commodity crop farmers are likely to face. As farmers transition to new types of enterprises, they are more likely to experience losses that are not adequately covered by disaster programming.

The type of farm enterprise affected also has a major effect on the probability and effect of different types of damage. The destruction of a greenhouse may be a challenge for a farmer who uses it to produce tobacco transplants, but catastrophic to a producer of nursery plants. The fastest growing sectors of North Carolina agriculture bring different damage profiles and different susceptibilities than many traditional crops.

**Federal Disaster Response**

The federal government’s response to a natural disaster is triggered by a disaster declaration. There are four types of disaster declarations applicable to agriculture, depending on the type and severity of damage: the presidential major disaster declaration, the USDA secretarial disaster designation, the FSA administrator’s physical loss notification, and quarantine designation. Presidential declarations are requested by the state’s governor, secretarial designations are requested by the state’s Secretary of Agriculture, the FSA administrator’s declaration and the quarantine declaration are requested by the FSA State Executive Director.  

**Division of Labor**

After a disaster, there is a specific division of labor among Federal agencies. Many people in disasters, farmers included, frequently look to the wrong agency for assistance, and can erroneously receive the impression that no assistance exists.

The best known of the agencies that deal with disasters is the Federal Emergency Management Agency, which addresses household losses for individuals, including farmers. The Small Business Administration provides emergency loans to non-farm businesses and emergency home loans. Both FEMA and SBA are prevented from assisting farm losses or damage to farm rather than household assets. Farm losses are addressed through programs administered by the Farm Service Agency of the USDA, at times in collaboration with the Natural Resources Conservation Service.

One specific area of confusion is the line between a farm enterprise that is eligible to receive assistance from FSA and a farm-based business that would receive assistance from the SBA. For example, following Hurricane Floyd in 1999, a farmer who owned a cotton gin on his farm applied for assistance from the SBA for the gin operation as a separate business. He was told by the SBA that it was too much a farm for them to assist, but was then told by the FSA that
it was too much a business for them to assist. Unfortunately, while individual agency decisions can be appealed, there is currently no mechanism for appealing difficulties between agencies. As more farmers develop on-farm processing, this issue will become more important.

**The Speed / Integrity Conundrum**

Government disaster response has two competing priorities, speed and integrity. The public generally wants aid to get there fast but to get to only those who deserve it. Much of the public criticism of the government’s response to Hurricanes Katrina and Rita has focused on how much time the response took and levels of fraud and waste. Unfortunately, speed and accuracy are often competing priorities; the faster you go, the harder it is to make sure that everyone receiving aid deserves it. These competing priorities frequently create a situation where assistance goes to those who need it less and misses those who need it more.

The days following a disaster are chaotic on the farm as well. In the scramble to save lives and property, gathering documentation for disaster assistance programs that may come years later often takes a back seat. In the crisis of a disaster, documentation is often not gathered or is lost, and those in the greatest need are often least able to gather or provide documentation. Farmers struggle to take care of family emergencies and personal losses as well as losses on the farm.

Programming that allows farmers and the government to plan ahead helps lessen the distance between speed and accuracy. For instance, after a disaster, farmers who cannot participate in crop insurance and who have not had a reason to create federal records of their crops and acreage often do not have the time or the means to create proper records of their losses and receive appropriate aid. However, farmers who grow commodity crops and participate in crop insurance have records that are accurate and quickly accessible. Ideally, aid would be distributed on the basis of need alone. However, farmers with quickly-accessible records almost always receive more aid than those without.

**Creating Disaster Programs**

Each federal disaster program, like all federal programs, must
undergo four steps before it can assist farmers. First, a program must be authorized by Congress. With authorization, Congress creates the program and agrees to the amount of money that may be spent on that program, either up to a specific amount or “such funds as are necessary.” Next, Congress determines the amount of money to be spent, either in the authorization legislation or through appropriations. This amount is often much smaller than the amount authorized. Next, a program enters the regulation process. Legislation typically includes general descriptions of programs, but not the specific details. Federal agencies, in this case the USDA, create the regulations that determine the details within the legislative framework, including how to calculate losses, who will qualify for aid, and the other specific decisions that are critical to the program’s effect. Fourth, the program is implemented at the state and county levels. Implementation often requires training local staff in the regulations and depends on them to do the proper analysis and outreach. The effectiveness of implementation can vary widely from county to county depending on staff’s training and time constraints.

**Types of Disaster Assistance Programs**

**Crop insurance**

There are three levels of disaster assistance programs. Crop insurance, which is administered by the Risk Management Agency of the USDA, is the most consistent of these programs, existing independently of specific disasters. As with all forms of insurance, farmers purchase policies yearly in anticipation of need. Crop insurance is available only for certain crops, although the Noninsured Crop Disaster Assistance Program fills in the gaps for almost all crops without existing crop insurance policies. Farmers must certify their acreage at the time they take out a policy so that the government knows exactly how much they are insuring. Although not perfect, crop insurance is relatively predictable and dependable for both the farmer and the government. Farmers receive crop insurance payments relatively quickly after a disaster.

**Standing programs**

Standing programs are authorized and regulated in advance. In general, the programs receive a small yearly baseline appropriation but most of their funding comes through emergency supplemental appropriations. Standing programs are the second most consistent form of assistance behind crop insurance, and several programs, such as Emergency Farm Loans and the Emergency Conservation Program, have consistently received funding in recent years. The Secretary of Agriculture also has the authority to reallocate funds that have not been used from some other programs into standing disaster programs.

**Ad hoc programs**

Ad hoc programs are created from scratch after each disaster, although they frequently follow previously-created patterns of assistance. These programs require the most time before implementation and offer the least predictability. Ad hoc programs are the most inconsistent and the most vulnerable to political pressures and manipulation. However, they may be adapted to specific situations and may meet specific needs that are not covered under pre-existing programs. Ad hoc programs can take years to deliver benefits to farmers and often aid more in the long-term recovery than in immediate relief. Although they can be used to fill in
the holes in standing programs, historically, ad hoc programs have most frequently been based on standing programs, exacerbating rather than filling gaps.

The type of program through which a farmer receives aid will help determine the probability and speed of relief. For instance, the Emergency Conservation Program, a standing disaster program that provides cost-share payments for damage to farmland such as downed trees and clogged drainage ditches, is often one of the most quickly and consistently authorized programs. ECP was authorized rapidly after Hurricanes Katrina and Rita. On the other hand, in May of 2007, 21 months after the disaster, Congress first provided ad hoc crop disaster payments for damages from the same hurricanes. In the following chapters we will look in more detail at the range of available disaster assistance programs, and how the disaster assistance system fits with the changes in North Carolina agriculture.
Chapter 4
Crop Insurance and the Risk Management Agency

Federally subsidized crop insurance is a farmer’s first and most important federal defense against disaster losses. It has become one of the basic building blocks of American agricultural financing. Crop insurance is administrated by the USDA Risk Management Agency but offered to farmers through private insurance agencies.

Crop Insurance Background

Crop insurance is the most widely accessed disaster program with 1.19 million policies per year nationally insuring 246 million acres and $44.3 billion worth of crops. In North Carolina in 2005, there were 19,039 policies on 3.1 million acres covering $907 million in crops, with over 75 percent of eligible acreage participating in some form of crop insurance.

Crop insurance is also the most dependable form of disaster protection for farms. Crop insurance forms the basis for farm planning and credit. Its predictability allows farmers to make budgets and access credit with the assurance that their financial plans will survive a disaster. This dependability reduces the need for government ad hoc disaster response by addressing disaster losses in advance. This is not to say that farmers do not have difficulties with crop insurance coverage or with getting access to crop insurance benefits. They do. However, crop insurance provides the most predictable and generally the quickest assistance.

Crop insurance has supported farmers for almost 70 years and has shifted over time to meet the needs of the agricultural community. Subsidized crop insurance was established as a pilot program in the Agricultural Adjustment Act of 1938 with the establishment of the Federal Crop Insurance Corporation and remained a pilot program offered by USDA to farmers growing certain crops in select areas through 1979. The Federal Crop Insurance Act of 1980 made crop insurance available nation-wide, created subsidies of crop insurance premiums and established the current model of

![Farmer Ervine Bell with a ruined tobacco crop.](image)
federally established programs offered through authorized private companies.

Over time, the Risk Management Agency has developed crop insurance policies for a wide range of crops. In North Carolina in 2006, crop insurance was available for 19 different crops, seven of which had more than one policy available (Appendix B). Many crops that are not eligible for crop insurance are provided crop insurance-like benefits under the Noninsured Crop Disaster Assistance Program, or NAP, which will be discussed later. As effective as this crop-by-crop approach has been, it is now being challenged by the rise of diverse specialty crops and emerging niche markets.

Effective risk management is a significant element in a farmer’s decision to diversify a farm operation or begin a new farm enterprise. The lack of effective risk management programs for specialty crops is a disincentive to diversification. The availability of risk management programs also affects the ability of the farmer to seek financing. When evaluating loan applications for new enterprises or routine operating loans, bankers look at the probability of payment. Crop insurance assures bankers of a level of repayment that does not exist without these programs.

Crop insurance is the key to strong disaster programming. Effective crop insurance forms the structure of the disaster

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**Crop Insurance Basics**

The federal crop insurance program is administered by the U.S. Department of Agriculture’s Risk Management Agency. The program is designed to protect crop producers from unavoidable risks associated with adverse weather, plant diseases, and insect infestations. Insurance policies are sold and completely serviced through approved private insurance companies that have their losses reinsured by USDA. Whether or not a crop is covered under the program is an administrative decision made by USDA. The decision is made on a crop-by-crop and county-by-county basis, based on farmer demand for coverage and the level of risk associated with the crop in the region, among other factors. Most of the major crops (wheat, corn, other feed grains, cotton and rice) are covered in nearly every county in which they are grown. Fruits, vegetables and other specialty crops are also covered, but availability of coverage varies by region. In total, approximately 80 crops are covered.

There are four sources of federal costs for the crop insurance program. USDA absorbs a large percentage of the program losses (the difference between premiums collected and indemnities paid out), subsidizes a portion of the premium paid by participating producers, compensates the reinsured companies for a portion of their operating and administrative expenses, and pays the salaries and expenses of the RMA.

Under the program, a participating producer is assigned: 1) a “normal” crop yield based on the producer’s actual production history, and 2) a price for his commodity based on estimated market conditions. The producer can then select a percentage of his normal yield to be insured and a percentage of the price he wishes to receive when crop losses exceed the selected loss threshold. The producer pays a premium that increases as the levels of insurable yield and price coverage rise. However, all eligible producers can receive catastrophic (CAT) coverage without paying any premium. The premium for this level of coverage is completely subsidized by the federal government. The farmer pays an administrative fee for CAT coverage ($100 per crop per county), and in return can receive a payment equal to 55% of the estimated market price of the crop, on losses in excess of 50% of normal yield.

safety net, underpinning the rest of the system. Without effective crop insurance, farms remain vulnerable to the whims of the weather, and farmers adapt to a changing marketplace at their own risk.

**Growing Crop Insurance**

In recent history, Congress has worked to increase rates of participation in crop insurance as a way to reduce the need for expensive ad hoc disaster programs. In March of 2006, Risk Management Agency Administrator Eldon Gould stated that, “barring any significant unforeseen hurdles, within the next five years a risk management product will be available to potentially cover approximately 98 percent of the commercial value of U.S. crops.” This goal means that crop insurance will only become more important in disaster assistance.

Congress has worked to increase enrollment in crop insurance by increasing the level of government subsidy of premiums and by requiring enrollment in crop insurance for participation in some disaster programs. In recent years, programs such as the Crop Disaster Program, which we will discuss in the chapter on ad hoc programs, are based on crop insurance or NAP payments, and participation in crop insurance or NAP is prerequisite for receiving benefits. This process has been successful at increasing the enrolled eligible acreage. Following the 1994 premium subsidy increase, the number of policies in North Carolina more than doubled, and by 2006, 77 percent of eligible North Carolina acreage was enrolled in crop insurance. The Risk Management Agency has been effective at developing new products and increasing enrollment in areas where there is uniformity and a long historical record. For instance, corn, which in 2004 accounted for 2.2 percent of total farm receipts in North Carolina, has no fewer than six crop insurance programs, including four based on revenue insurance, which will be discussed later in this publication.

**Crop Insurance and Changes in Agriculture**

Unfortunately, those eligible crops represented only 28 percent of North Carolina farm income in 2005, and crop insurance policies insured only 15 percent of that income in the same year. The percentage of farm income covered by crop insurance has actually fallen in recent years, from 19 percent in 1999 when Hurricane Floyd hit to 15 percent in 2005. The Risk Management Agency has a long way to go to meet its goal of 98 percent coverage. Federal programs have successfully expanded enrollment in existing programs. Further expansion will require new programs.

The Risk Management Agency has had a difficult time developing programs for various commodities and production systems, including livestock and poultry (62.3 percent of North Carolina farm income), nursery plants (10.1 percent), and value-added enterprises. Risk Management Agency officials recognize this difficulty. According to Eldon Gould, Risk Management Agency Administrator, “[The RMA is] woefully inadequately covered under livestock…that is something that we have been trying to address over the last couple of
years.” Expanding into currently ineligible crops and farm products is the only way for the Risk Management agency to meet its goal of covering 98 percent of American farm income.

**Noninsured Crop Disaster Assistance Program**

The Noninsured Crop Disaster Assistance Program provides benefits comparable to the lowest level of crop insurance for crops that do not have crop insurance policies available. As with crop insurance, farmers must sign up for NAP at the start of the growing season before disasters take place. NAP is administered by the Farm Service Agency rather than through private insurance companies. Because NAP provides a predictable system much like crop insurance, the government has encouraged farmers to participate in NAP. Participation in some ad hoc disaster programs has required that the farmer sign up for NAP in following years, and recent disaster programs have required NAP participation as a prerequisite for eligibility.

Unlike crop insurance, NAP is available only at the catastrophic level, and there is no option to buy up to greater coverage. NAP has a coverage level of 55 percent of the value and a damage threshold of losses over 50 percent. In other words, in the event of a total loss, a farmer is covered for 55 percent of the average market price for losses over 50 percent of the historical yield, or about 27.5 percent of their expected income. Expected yields are established through either Farm Services Agency production history or through county averages. Because of the very low level of coverage, many farmers have found that NAP benefits are not worth the time and effort it takes to enroll in the program.

**Crop Insurance and Production Contracts**

No programs currently provide crop insurance for any farm product under a production contract. Corporations, which typically own the product under contract, may receive ad hoc payments but are prohibited from receiving crop insurance. Farmers who grow under production contract do not own their product and so cannot insure it.

**Crop Insurance for Organic Agriculture and Value-Added Production**

Organic agriculture provides a good example of how crop insurance works and does not work for emerging value-added enterprises. The organic market, which has been growing at approximately 20 percent per year since 1990, is one of the fastest growing segments of agriculture. It is also one of the most mature of the value-added sectors, with an extensive federal certification program and clear standards. Since 2003, the Risk Management Agency has recognized organic in its definition of “good farming practices,” requiring that they be “those generally recognized by the organic agricultural industry for the area or contained in the organic plan.” As an established and well-documented sector, organic agriculture presents the Risk Management Agency with the chance to pilot and evaluate programs for value-added enterprises. Currently, crop insurance will cover some organic products, but it does not provide organic farmers with the same financial security offered to their conventional counterparts.

Much of the rapid growth of organic production has been driven by price premiums paid to the farmer. For example, a USDA study of the price of organic broccoli and carrots showed
that, between 2000 and 2004, organic products sold for 175 to 233 percent of the wholesale, conventional price.\textsuperscript{26}

Crop insurance, however, currently has no effective program for providing risk management for income above the commodity price. Crop insurance policies are available for organic producers, but at increased costs and without recognition of the organic price premium. In fact, to offset perceived increased risk, organic producers pay a five percent surcharge for crop insurance policies. They pay more for less.

Since the premium for organic can more than double the price of the commodity, crop insurance based on the conventional price covers a far lower percentage of the organic farmer’s income. For instance, if the organic premium doubles the price of the crop, then 85 percent crop insurance coverage actually insures 42 percent of the organic farmer’s income from that crop. Crop insurance still needs substantial changes in order to provide a meaningful safety net for organic farmers.

Unfortunately, the time frame for developing new crop insurance products is 10 to 15 years. The Risk Management Agency needs time to develop a pilot program, test it and gather data. Organic farmers and others who depend on value-added products cannot afford to wait a decade. Fortunately, the Risk Management Agency already offers whole-farm revenue insurance, such as AGR and AGR-Lite, which provides the opportunity for crop insurance coverage of income from premium prices. As discussed below, these programs are currently too complex to be widely accessible to farmers, but they are the best avenue for providing reliable disaster protection to value-added farmers.

\textbf{Revenue-Based Crop Insurance}

In recent years, the Risk Management Agency has developed new approaches to crop insurance that insure farmer income rather than yield. Farmers can take out revenue-based insurance on a number of crops. These revenue-based programs protect farmers from fluctuations in price as well as from natural disasters. Coverage is based on federal records of crop price. The first of these widely-used programs have focused on commodity crops. In 2005 more than 60 percent of corn, wheat and soybeans acres were covered by revenue insurance.\textsuperscript{27}

\textbf{Pilot Whole-Farm Revenue Programs}

The Risk Management Agency has started a shift to whole-farm revenue insurance, which focuses on the gross

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{peppers.png}
\caption{Loss of diversified or unusual farm products such as the peppers pictured here can be covered through whole-farm revenue insurance rather than through individual crop policies.}
\end{figure}
revenue of the entire farm rather than on specific crops. The Adjusted Gross Revenue program was introduced as a pilot in 1999, followed by AGR-Lite in 2003. In 2007 AGR-Lite was available in 28 states, including North Carolina.\textsuperscript{28}

**New Potential and New Challenges**

Whole-farm revenue insurance is the best existing product for insuring underserved areas of agriculture, and could address the risk management needs of value-added enterprises. AGR policies customize coverage for each individual farm. Unlike other revenue-based programs, whole-farm revenue insurance provides crop insurance based on a five-year average of the farmer’s gross income, as established on Schedule F of the farmer’s federal tax return. Farmers’ coverage can therefore account for price premiums beyond those documented in federal price records.

The AGR programs have been slow to be accepted. In 2007, there were 551 AGR policies nationally, down from 944 in 2003. In 2005, there were 165 AGR-Lite policies. In contrast, there were 1.9 million crop insurance policies the same year.\textsuperscript{29} In 2006, the third year of the program, there were only 9 AGR-Lite policies in North Carolina.\textsuperscript{30}

The reason for the abysmal acceptance rates is that, while AGR and AGR-Lite are simple in concept, they have proven to be extremely complicated in implementation. Because of the complexity of both application and claims adjustment, crop insurance agents are reluctant to promote these programs and farmers are reluctant to trust them. Specifics in the requirements of the program have made it difficult to determine eligibility of income and coverage of losses, and some farmers have been surprised to discover the limitations of their coverage only when their claims were adjusted. The number of program participants is declining, suggesting that some farmers have used the program and found that it did not meet their needs. In short, this program is not living up to its potential.

In RAFI’s experience with farmers who have evaluated AGR-Lite crop insurance for their farms, and in the experience of officials who have assisted farmers in North Carolina and several other states with this program, there are several aspects of AGR and AGR-Lite that cause difficulty for farmers.

**Lengthy documentation**

First, the programs require lengthy and complex documentation from participating farms. For example, as a part of the application, the farmer must submit five years of Form 1040...
Schedule F. There may be ways to simplify the forms, but the requirement that the farmer demonstrate both historical gross income and the capacity to produce that income during the insurance year cannot be escaped. This issue should be addressed by significant outreach, education and technical assistance, including clear information about required documentation and program specifics.

**Lack of trained agents**

Second, many farmers seeking information and assistance on AGR-Lite have reported finding it difficult to identify trained insurance agents to assist them in the application process. Many of the farmers with whom RAFI has worked received delayed, discouraging or erroneous information as a result of their initial contact. Farmers in other areas of the country have also encountered challenges in identifying trained insurance agents that were both knowledgeable and willing to assist farmers with the application process. Insurance agents are paid based on the amount of liability they insure. For an agent working on commission, spending days walking a farmer through the complicated requirements of whole-farm revenue insurance makes no financial sense. As programs are revised, agents or other technical service providers should be provided with the ability and incentive to provide thorough information and assistance.

**Lack of coverage for value added by processing**

Third, income attributed to post-harvest processing is considered uninsurable. The delineation between insurable crop value and uninsurable value added by processing can be complicated. For example, under the current policy standards, if a farmer puts cabbage in boxes for market, the value of the boxes must be subtracted from the farmer’s insurable gross income even if the cabbage cannot be sold without the box. In contrast, the market price of commodities such as corn or peanuts, which are the basis for conventional crop insurance, assumes equivalent levels of post-harvest handling, such as drying. While these post-harvest expenses are generally a fairly small amount of the farmer’s income, the difficulty of documenting these expenses and adjusting the gross income accordingly adds significantly to the difficulty of applying for AGR policies.

The lack of coverage for value added by processing is especially problematic for small-scale producers whose on-farm processing is integral to farm income. For example, income produced through value-added activities such as turning fruit into jam, vegetables into pickles, or milk into cheese is currently not eligible for consideration under the program. Even if these farmers were able to easily calculate and insure the value of their products before processing, their resulting coverage would only insure a tiny part of their income.

**Low levels of coverage**

Fourth, levels of coverage are not sufficient. AGR-Lite currently caps coverage at 80 percent of a farmer’s gross income, or 75 percent for producers of a single crop, with 90 percent payment rate. This effectively covers 72 percent of the farm’s income. These levels of coverage are derived from the coverage levels for the traditional, single-crop insurance. A 20 or 30 percent loss of one crop can equate to a far smaller reduction in gross income because the farmer can take steps to replace lost income from other crops or enterprises. However, these levels of coverage
are inadequate for whole-farm revenue insurance. Gross income losses of 20 to 30 percent are frequently devastating.

**Omission of disaster payments**
Fifth, under current regulations, crop insurance and other disaster program payments are not included in the determination of the farmer’s five-year income average. This omission significantly reduces the farmer’s average gross income and therefore the farmer’s coverage. One disaster can skew the average and bring down the farmer’s level of coverage for the next five years, affecting his ability to access operating loans and recover after the next disaster.

**Insufficient base price**
Sixth, establishing base prices presents a challenge. Currently, AGR-Lite policies state that if USDA prices are not available, then the average price offered by two commercial buyers, one nominated by the policyholder and one by the insurance company, should be used. However, prices offered by commercial buyers are usually substantially lower than direct or niche market prices.

**Unpredictable coverage**
Seventh, farmers often think they are contracting for a set amount of coverage, only to find during claims adjustment that specific requirements of the program not made clear during application reduce their eligible level of coverage. Complete paperwork does not need to be filed until after a disaster, so farmers and their agents rarely calculate the payments that farmers should expect. Because of the complicated nature of the program, farmers’ estimates of coverage often exceed the real amount. The result is often a payment of an amount much less than that on which the farmer had relied.

AGR and AGR-Lite have the potential to bypass the long development process for crop-specific policies. They offer the best opportunity to quickly address the insurance needs of new and emerging value-added markets. However, these programs will require significant refinement in order to effectively manage farmers’ risk. The process of applying for coverage must be streamlined, agents must be able and willing to promote the programs, value added by on-farm processing must be made insurable, levels of coverage must be increased, and payment calculations must be made clear at the time the farmer purchases the policy. These changes are extensive, but they require less time and work to implement than developing entirely new insurance products. Improving whole-farm revenue insurance is the best way to provide a safety net for farmers who rely on value-added production.
The McAdams family grew tobacco on their northern Orange County farm for 115 years. Right up until 2000, tobacco and beef cattle paid the bills on their farm. But in the late 1990’s, as tobacco allotments were cut and cut again, it became obvious that they had to change. 2000 was the last year that they grew tobacco.

The McAdams still have the beef cattle. They had 100 breeding cows until they had to sell off part of the herd due to this summer’s drought. The tobacco, however, has been replaced with six acres of strawberries, mixed vegetables and cut flowers. “We sell everything we grow retail at the farmers market, pick your own, pre-picked or at our farm stand,” says Karen McAdams. “We’re making as much money, but we’re working much harder. We spend a huge amount of our time marketing. With tobacco, you harvested and cured it, and taking it to the market took seven or eight days, not 27 weeks at the farmers market.”

The transition has also meant a great deal of change in their risk management. With tobacco, the McAdams had access to a range of crop insurance and other disaster programs. “We had federal crop [insurance],” says Karen McAdams, “but I think 1983 was the only year we collected. We had some sorry crops, but the losses always fell just short of being able to collect.”

Risk management has been much more of a challenge with their new enterprise. Most of their vegetables and their strawberries are insured under the Noninsured Crop Disaster Assistance Program. Under crop insurance, the McAdams could insure up to 75 percent of their tobacco yield. NAP covers 55 percent of the wholesale price for damage over 50 percent of the expected yield, or 27.5 percent of the expected wholesale price. However, for the McAdams, the percentage of income covered is much lower because they receive retail rather than wholesale prices.

“We have NAP on all of our produce,” says Howard McAdams, “but other than right when we start picking strawberries, there is no point during the season when if we had a hail storm that destroyed the crop it would be more than the 50 percent damage threshold for us to get paid. If someone had one harvest it might, but for us we don’t pay much for NAP, but we don’t get much either.”

According to McAdams, “You have to self-insure so that you can absorb the loss if you have to. We can do that because we have been around for a lot of years and have assets. But for a beginning farmer who is struggling to make the land payment, you would need to be better insured.”

MacAdams looked at the available crop insurance programs. “Right now none of the programs look attractive. There is a pilot crop insurance program for strawberries, but we do not have that yet. We looked at the AGR-Lite program, but you are only covered if the loss is more than 20 percent of your total gross income. We had a freeze last spring that cut out our strawberries and killed our early season squash and cucumbers. But we double and triple crop and sell throughout the season, and that loss comes nowhere close to the 20 percent threshold. Unless there was a major
cattle disease outbreak that dropped cattle prices to 15 cents a pound, I do not see any scenario where AGR-Lite pays for itself. If the coverage level was higher, or if we had one crop that was most of our income it might, but right now it does not work for us.”

The transition from tobacco to mixed vegetables and cut flowers was not an easy one. “People think that if you are already farming then the switch is easy, but it is not,” says Karen McAdams. “We had to invest a lot. We put in two irrigation ponds, purchased new equipment including a tractor that would fit between the rows, a plastic layer and a mulch lifter, and invested in a walk-in cooler, a freezer and retrofitted a tobacco barn as a cool room for tomato storage and making cut flower bouquets. This was a major investment that we made over several years.”

While the tobacco buyout payments helped, the McAdams needed to get financing for their transition. “We were fortunate that land values are high enough in this area that the land was the collateral for the loan. But for people who have smaller acreage or who needed the buyout money to pay off debt, collateral would be much more of an issue.”

In her role as Cooperative Extension Agent for Orange County, McAdams sees many new opportunities for farmers. “There are 100 different things that people could grow here: edamame, oriental eggplants, specialty peppers, medicinal herbs. But the prices in these markets fluctuate. And how do you insure them?”

For the McAdams, what started as a way to sell off the extra from a garden that was too big has become their way to keep a 115-year-old farm in the family. “It is a pretty sorry piece of land, sandy on top and hard to farm, but the McAdams have kept it going because they are a tough breed,” says Karen McAdams. “They work hard, and keep on working.”
Chapter 5
Disaster Programs

Farmers and communities often expect federal disaster programs to lead to complete and seamless recovery. However, current disaster programming addresses a limited range of losses on the farm. This range can and should be expanded, but the reality is that no disaster program, no matter how well crafted, can put everything back to the way it was before a disaster.

The gap between disaster policy and farmers’ needs often becomes apparent after a disaster. After a disaster, communities usually go through five emotional phases: the heroic phase, where neighbors pull together for rescues and repairs; the honeymoon stage, where there is a great deal of attention from media and politicians, the first aid rolls in, and full recovery seems assured; the disillusionment phase, where the community realizes that aid will take a long time to arrive and will not lead to complete recovery; the anger phase, where communities blame aid providers, including the government, for gaps and delays in assistance as well as the confusion around assistance logistics; and the recovery phase, where communities pull together and commit to adapting to the losses and finding long-term solutions. In the days immediately following a disaster, there can be a great deal of rhetoric promising that disaster programs will put the lives of farmers and others who have been through a disaster back the way they were. The reality is that disaster programs rarely cover the full range of damages and losses, and people are frequently left to pick up their own pieces.

Unfortunately disaster programs’ benefits are often not distributed evenly across commodities or farm enterprises, and become a comparative economic advantage in the marketplace for those who are well-covered and best able to provide the documentation that disaster programs require. In this chapter, we look at the range of disaster programs in recent years, and what types of damage are most and least likely to be assisted.

Types of Programs

There are basically two levels of disaster assistance programs, which, unlike crop insurance, do not take effect until after a disaster has occurred. Standing programs receive ongoing authorization and funding and are therefore most quickly available in times of disaster; ad hoc programs require Congress to create them after each disaster.
and are often tailored to the specific needs of affected communities. In addition to these programs, there are some administrative actions that the USDA can take to provide disaster relief. Together with crop insurance, these programs and actions form the federal safety net for farmers in times of disaster.

The long list of ad hoc programs reaches into the distant past. These are the most variable programs and are the most vulnerable to the political forces of the time. Some are essentially single-use programs that have limited lives to address a specific problem or situation. Although ad hoc programs are created anew after each disaster, each program sets a precedent, making it more likely that a similar program will address similar needs after the next disaster.

In this section we will look at a cross-section of standing and ad hoc disaster programs and how they address the changes in North Carolina agriculture.31

Standing Programs

There are two major standing disaster programs other than Crop Insurance. The Emergency Loan Program provides low-interest loans in declared disaster areas. The Emergency Conservation Program provides cost-share support for cleanup and is one of the oldest emergency programs. Both programs can become active immediately after a disaster is declared, although ECP often requires additional funding. Neither of these standing disaster programs provides direct payments to farmers for disaster damages. Emergency loans provide quick cash but can have a major effect on the debt-to-asset-ratio of a farm, and the Emergency Conservation Program provides cost-share support, which requires the farmer to pay expenses up front and then apply for reimbursement.

Emergency Farm Loans

Emergency Farm Loans are one of the most commonly available forms of disaster assistance. They help farmers spread out the cost of the disaster damage over several years. The Farm Service Agency administers the loans, providing 3.75-percent-interest loans for disaster recovery, including production expenses, family living expenses and refinancing of other debt. Farmers can receive loans up to the amount of their documented disaster damages. Emergency loans are usually available fairly quickly, providing quick cash necessary for a return to production.

Emergency Farm Loans are, however, loans, and farmers must be able to show repayment ability and fully collateralize the value of the loan. This can be very challenging for farmers who are already carrying a significant debt load. If farmers are already heavily financed, which is not unusual, especially in areas that have had multiple disasters in recent years, they may not be eligible for emergency loans and therefore a significant part of government disaster assistance.32

Just as with other farm financing, the value of a product is calculated based on wholesale prices, so value-added farms are able to claim only a small portion of their expected income when calculating losses and available collateral.

Emergency Conservation Program

The Emergency Conservation Program was developed to provide funding to restore conservation features on land. This program has received high levels of funding fairly consistently after recent...
disasters, including almost every agricultural disaster since 1993. The Farm Service Agency administers ECP locally with input from the Natural Resources Conservation Service.

In recent years, the ECP has begun to cover restoration of land and means of production in more general terms. Commonly covered expenses include clearing debris from fields and drainage ditches and restoring permanent fencing. In 2005, temporary authorization was added to ECP for funding of disposal of poultry mortality and removal of poultry house and greenhouse debris for the 2005 hurricanes. This was the first time the ECP had covered damage to a means of production other than land.

ECP is a cost-share program that reimburses the farmer for a portion of expenses. ECP requires that expenses be authorized for cost-share prior to when they are incurred, although this requirement may be waived in extreme emergency situations. Receiving reimbursement can become more complicated when a farmer is able to do repair work themselves rather than hire a contractor to do the work, and there are no official expenses.

Local FSA committees make the decisions on priorities and methods for disbursement of ECP funds. The program can provide cost share of up to 75 percent, or 90 percent for limited resource farmers, but coverage levels are determined at the state level after a disaster. Often, demand outstrips the allocation of funds to a particular state or county. FSA offices in each state may choose to provide funding to a limited number of farmers on a first-come, first-serve basis or to wait until all applications are in and give an equal percentage to each farmer. In the latter scenario, cost-share rates are often far lower than 75 percent and have been as low as 15 percent in some areas.

For many value-added and contract producers, the means of production represents a significant investment. The ECP has recently been the only program that addresses the costs associated with restoring the means of production.

**Ad Hoc Programs**

Ad hoc programs are created to address a particular disaster or series of disasters. Ad hoc program development often depends on the realities of the disaster or political environment of the time. These programs are the most variable in terms of implementation. This means that programs can adapt to a particular situation, but farmers cannot plan on them, and assistance is often delayed.

Legislators writing ad hoc programming legislation often place a heavy emphasis on doing what was done before and building on existing programs. This streamlines the policy-making
process. However, it also reinforces the gaps in disaster programming. If a farm operation has not been well served in the past, it is not likely to be well served in the future.

Recently, many ad hoc program benefits have been based on NAP or crop insurance documentation and benefits, and have required participation in crop insurance or NAP. These requirements were developed to encourage farmers to participate in crop insurance, which, as discussed in Chapter Four, allows both the government and the farmer to plan ahead much more effectively than ad hoc programs and which is theoretically more affordable for the government because participating farmers pay premiums as they would for other forms of insurance. However, the regulations have the effect of reinforcing the gaps in crop insurance programming. Farmers whose operations are not adequately covered by crop insurance have a difficult time accessing ad hoc programs as well.

Because ad hoc programs are often modeled on past programs, the kinds of programs that have been developed in the past provide good predictors for what will be created in response to future disasters. Ad hoc programs have been developed for both crop and livestock operations. The range of programs illustrates some of the potential for ad hoc programs to address new types of farm enterprises and shows the gaps that still remain.

**Crop Programs**

**Crop Disaster Program / Hurricane Indemnity Program**

The Crop Disaster Program has been the largest recipient of federal disaster funds since 1989, receiving $20 billion.\(^{34}\) Like crop insurance and NAP, crop disaster payments cover a percentage of losses above a certain threshold. In payments after the 2004 hurricanes, farmers received 50 percent of the value of losses above 35 percent, augmenting crop insurance or NAP payments.

Payments similar to Crop Disaster Program payments were made under the Hurricane Indemnity Program of 2005. HIP payments required participation in either crop insurance or NAP. The 2005 HIP augmented actual income and crop insurance or NAP payments to bring total income to 95 percent of the expected value of the crop. The U.S. Troop Readiness, Veterans’ Care, Katrina Recovery, and Iraq Accountability Appropriations Act of 2007, provides payments at 42 percent of the established crop price to farmers who suffered more than 35 percent damage not covered by crop insurance or NAP. It requires prior enrollment in crop insurance or NAP for eligibility.

Crop disaster payments are fairly easy to calculate for commodity farmers with a production record with the Farm Service Agency. Crop insurance or NAP claims include field damage assessment by insurance adjustors and therefore create a record of damages. It is therefore fairly simple to compare established yields, certified acreage and assessed damages to determine payments. USDA directives also state that disaster benefits cannot be based on prices other than the wholesale conventional price of the product, limiting benefits for farmers who sell products into specialty markets.

**Fruit and Vegetable Program**

Fruit and vegetable programs have been authorized for a series of disasters, most recently the 2005 hurricanes. The Emergency Agricultural Disaster Assistance Act of 2006 authorized up to $95 million in funding for the Fruit and Vegetable Program.\(^{35}\) This program compensated producers for production quantity or quality losses based on geographic areas. The FVP did
not require participation in crop insurance or NAP for eligibility, but did increase payments for those who did participate.

Producers documented their acreage of production and received a set amount per acre regardless of the crop, based on the percent damage in their area. A map was drawn designating geographic areas as Tier I through Tier IV based on damage maps. Farmers received payments based on how much of their acreage was located in each tier. Tier I damage received $3,750 per acre and Tier IV damage received $250 per acre. These amounts fell far short of the value of destroyed crops. For instance, in 2006, average per acre income from conventional wholesale tomatoes in North Carolina was $10,540, and the value of specialty or direct-marketed tomatoes would have been far greater.

**Nursery Program**

Under the 2005 Nursery Program, also authorized under the Emergency Agricultural Disaster Assistance Act of 2006, producers with state certification were eligible for payments of up to 25 percent of the lost value in plant inventory plus up to $250 per acre for clean up costs. Once again, this payment represented only a small percentage of what a farmer would need to repair structures and replace lost inventory.

The Nursery Program did not require prior participation in NAP or crop insurance, but did reduce payments to those without coverage by five percent and require participation in the next eligible year. The 2005 Nursery Program also allowed documentation from a range of sources, including loan records, written contracts, production and sales records and tax documents, extending acceptable documentation beyond FSA certified production records.

**Tree Assistance Program / Tree Indemnity Program**

Several programs, such as the Tree Assistance Program and the Tree Indemnity Program, address the loss of trees that are the means of production, such as trees in orchards. Much like the Fruit and Vegetable Program, the TIP of 2005 compensated producers a flat rate per acre based on tiers of estimated percent damage. Payment rates ranged between $90 and $750 per acre. The TAP of 2005 provided funding based on 75 percent of the cost of replanting, and included trees that were grown for sale, such as Christmas trees. These programs provide a precedent for programs that address trees both as a crop with a long growing period and as a means of production.

**Livestock Programs**

A set of varying programs addresses elements of livestock loss. Livestock disaster programs generally cover losses associated with either the loss of animals, reduced income due to early sales of animals due to feed shortages or other disaster damage, or losses associated with loss of feed. As with crop programs, compensation for livestock programs is based on the conventional, wholesale price.

**Livestock Indemnity Program**

The Livestock Indemnity Program provides benefits to livestock owners to compensate...
for mortality or loss of income due to premature sale for a range of livestock in a disaster. The specific types of livestock covered vary from disaster to disaster, depending on legislative language. This program provides a per-animal payment for specific types of livestock.

After the 2005 hurricanes, Congress approved LIP payments to contract poultry producers, who did not own the poultry, providing an important precedent for compensating farmers with production contracts. Payments to growers, however, were much less than to owners. For instance, owners were compensated $4.78 for each layer hen, while growers received $0.28 per hen. Farmers who produced turkeys under production contracts received no payments, although 534 North Carolina farms raised over 47 million turkeys under production contracts. Payment amounts were even less appropriate for value-added livestock. For instance, the owner of a broiler chicken received $1.83 per bird, dramatically less than the five to eight dollars that a grower who raised pastured poultry would need to cover costs.

**Livestock Assistance Program / Livestock Compensation Program**

Several programs have compensated farmers for the loss of pasture, including the Livestock Assistance Program in 1998 and the Livestock Compensation Program in 2002 and 2005. These programs are designed to offset the additional costs of farmers’ having to purchase feed in the marketplace when their pastures are destroyed by disasters such as drought. Grazing losses occasionally have also been eligible for compensation under the Crop Disaster Program.

**Feed Indemnity Program / Nonfat Dry Milk Feed Assistance Program and Cattle Feed Program**

The Feed Indemnity Program provides payments to farmers for feed losses or increased feed costs. The FIP was last provided during 2005 and 2006 for farmers in declared disaster areas from Hurricanes Katrina and Rita. The Nonfat Dry Milk Feed Assistance Program and Cattle Feed Program allowed USDA to distribute surplus non-fat dry milk to registered feed dealers for use as cattle feed in areas of declared disasters. Feed shortages, brought on by loss of feed stores and by destruction of feed crops, can be a serious challenge for livestock producers, especially for dairy producers, so these programs fill a critical gap.

**A Recent Ad Hoc Example: Disaster Spending in the Iraq Emergency Supplemental Appropriations Bill**

On May 25, 2007, President Bush signed H.R.2206, the Iraq Emergency Supplemental Appropriations Bill. This bill provided approximately $3 billion in spending for agricultural disasters during 2005, 2006 and 2007. These programs include relief for damage from the 2005 hurricanes, but also provide benefits for Midwestern droughts during 2006 and the
Easter freeze in the Southeast in 2007. The bill illustrates the long waits and spotty coverage provided by ad hoc programs.

Farmers are able to receive benefits for disaster damages from one of the three years. The bill provides funding for five programs; Crop Disaster Assistance Program, the Livestock Indemnity Program, and the Livestock Compensation program, as well as additional funding for the Emergency Conservation Program and an emergency Conservation Reserve Program. The Crop Disaster Assistance Program will provide farmers with payments at 42 percent of the established crop price for yield losses above 35 percent. It requires farmers to have participated in either crop insurance or NAP at the time of the disaster. The Livestock Indemnity Program will provide farmers with payments for livestock deaths associated with disasters from one of the three years. The Livestock Compensation Program will provide farmers with payments for added feed costs associated with disasters during one of the three years.

**Administrative Assistance**

Standing and ad hoc programs require congressional authorization. There are also steps that can be taken by administrators without congressional action that can significantly assist farmers in disasters.

**Grazing on CRP land**

In extreme droughts, local Farm Service Agency offices can allow emergency grazing on lands under Conservation Reserve Program contracts, increasing the availability of grazing.

**Disaster set-asides / Disaster deferrals**

The Farm Service Agency may provide disaster set-asides to farmers with FSA farm loans. Set-asides allow farmers in counties that have been declared disasters to shift one FSA loan payment to the end of the loan period. In order to qualify, farmers must be current or less than 90 days past due on payments and have more than two years left on the loan. While set-aside principal continues to accrue interest at the same rate during the interim, interest that is set aside does not accrue additional interest.

As a way to reduce immediate financial pressure on farmers after Hurricane Katrina, USDA offered automatic disaster deferrals, which shifted current loan payments to the following year, to all farmers in disaster-declared counties. While this helped relieve immediate financial stain, it required farmers to pay two payments the following year, and interest continued to accrue during the interim.

While deferrals and set-asides can be effective tools to buy time, extension of interest accrual can become a hardship later in the life of the loan and should be undertaken with caution. For value-added farmers or other farmers with over-extended credit, the balloon payments and increased interest created by set-asides and deferrals can often be an insurmountable challenge.

**Standing and Ad Hoc Programs and Transitions in Agriculture**

Like crop insurance and NAP, most standing and ad hoc programs provide coverage that is focused on wholesale commodity crops. However, in several cases programs have adapted to
meet specific needs, including the needs of specialty, contract and value-added growers. These growers need more consistent and meaningful programming focused on their losses.

**Compensation for Specialty Crop Producers**

Disaster assistance programs have mixed results on coverage of production losses for specialty crops. Specialty crops are generally included in crop disaster programs, such as crop disaster payments or specific fruit and vegetable or nursery programs, but these payments are increasingly dependent on participation in either crop insurance or NAP. Specialty crop losses are more likely to be covered by NAP and specific fruit and vegetable programs, which provide lower levels of coverage than crop insurance and crop disaster payments. The effectiveness of these programs is therefore dependent on the efficiency of crop insurance and NAP, both of which, as discussed in the previous chapter, have major gaps in coverage.

One of the most significant gaps for specialty producers is in payments for losses of means of production, such as destruction of fruit trees or grape vines. The flat payment rates of $750 per acre for the reestablishment of orchards under the Tree Indemnity Program of 2005 are tiny compared to the actual costs of reestablishing an orchard, much less the lost income from the six to eight years that an apple orchard can take to return to full production.

**Compensation for Contract Producers**

In recent years, several disaster programs have addressed the direct disaster losses faced by contract producers, but these payments have been added to ad hoc programs and are not consistent.

In 1999, the Livestock Indemnity Program was amended to provide $10 million in payments for contract producers. The result was LIP-CG, a LIP program specifically for contract growers. LIP-CG was repealed in 2003.

Disaster bills for the 2005 hurricanes authorized LIP payments to contract producers for poultry mortality, Emergency Conservation Program payments to contract producers for mortality disposal and for repair or clean up of poultry houses, and Livestock Compensation Program payments for feed and pasture losses to both owners and cash lessees.

**Compensation for Value-Added Producers**

Disaster programs do not recognize added value from special production, marketing or processing practices. Under USDA regulations, the Farm Service Agency is prohibited from providing disaster assistance compensation based on a higher price for different cultural practices. USDA programs do recognize different prices for different wholesale markets, such as fresh market green beans versus green beans for processing, but do not allow farmers to set individual price histories for direct markets. Since the value of a product is set based on conventional wholesale prices, value-added farmers receive benefits that amount to a lower percentage of their farm income. This puts them at an economic disadvantage compared to conventional producers in both disaster recovery and access to credit and other financial tools.
A Tale of Two Farms: Disaster Programming on Conventional and Value-Added Farms

Larry and Steve grow blueberries on neighboring farms along the North Carolina coast. Their experiences with federal risk management and disaster policies illustrate the economic barrier that these programs create for farmers transitioning to organic and other value-added practices.

Larry operates a large-scale conventional farm. Steve operates a mid-size farm and has just transitioned to organic production.

Both Larry and Steve recognize the real dangers of weather disasters, and the National Weather Service has released a prediction for a higher than normal hurricane season, so both contact their crop insurance agent for assistance.

Both farmers are eligible for blueberry coverage under federal crop insurance. Catastrophic coverage, which provides approximately 27 percent of expected income in case of a total loss, is available for $100, and coverage at higher levels is available at federally-subsidized rates. Larry signs up for coverage at a 75 percent level, which is cost-effective for his operation.

Steve has a more discouraging visit with his crop insurance agent. Steve decides to take out the crop insurance at a 75 percent coverage level. His 75 percent crop insurance coverage will cost him five percent more because he grows organically, but will only cover 37 percent of his anticipated income because crop insurance is based on the conventional price, which is half of the organic price.

Larry shows his 75 percent crop insurance coverage to the bank. He is able to get an operating loan for the amount of his crop insurance coverage with the crop as collateral because the banker counts the crop insurance as assured income.

Steve takes his 75 percent crop insurance coverage to the bank, but it only assures 37 percent of his anticipated income, well below the amount he needs to borrow. The only way Steve is able to get the loan is to use off-farm income in his repayment ability and to use real property as collateral. He has sufficient collateral in land and equipment, but because this is an unusual enterprise, the banker wants him to put his personal home on the note and requires collateral valued at 150 percent of the loan.

At this point, Steve is already at a significant economic disadvantage, and he hasn’t used the crop insurance or even investigated disaster response programs. More of his assets are tied up in the loan, and he was able to borrow less. It also took much more of his time and effort to obtain credit, which means that he is behind in his field work.

Then comes a late-spring freeze.

Both farmers lose their entire crops, and receive crop insurance payments for 75 percent of their anticipated conventional price, which is 75 percent of Larry’s anticipated income, but only 37 percent of Steve’s. Larry pays off his loan, shuts down his operation for the year, and focuses on rebuilding. Steve pays off part of his loan, but
is now left with additional debt and no way to service it.

As soon as the disaster is declared, emergency loans become available and both Larry and Steve apply. Larry is able to get a 3.75 percent loan for the value of the 25 percent of his crop loss not covered by crop insurance. He uses the loan proceeds as part of his operating loan for the following year.

Steve is unable to borrow. He is once again caught in the high-cost, low-price bind. His collateral is tied up in the operating loan and the official value of his crop is below what he needs to borrow.

At the end of the season, Larry has been able to take out an operating loan for 75 percent of the value of his crop, and, even though he had a total loss with the freeze, is able to recoup almost all of his lost income and repay the loan. He uses his low-interest emergency loan to start the following season. He is also able to use his crop as collateral for most of his operating debt, which leaves him with farm and home assets that he can borrow against for additional rebuilding or expanding.

Steve, on the other hand, is able to recoup only a small portion of his expenses. He is therefore unable to pay off his loan and has to restructure his debt, increasing his debt load into the future. In order to obtain an operating loan for the following year, he has to put the rest of his real assets down as collateral and remains under-insured, which means that even a small loss the following year will mean that he loses everything he owns.

Same crop, same storm, two very different outcomes.

Larry and Steve are fictional farmers, but their stories are identical the stories of many farmers with whom RAFI works. While this story is written about an organic farmer, all of the other alternative niche market farmers are even less able to access the financial infrastructure. For these farmers, who produce products that have added value because they are grass-fed, hormone and antibiotic free, or local, the problems are even worse.

Right now Larry and Steve’s story is being played out across the country. Whether they are managing the risks of droughts, floods or freezes, farmers who are following their markets and connecting with their communities are finding that for them the safety net is more holes than string, and their bridge to the future is a cliff. Whatever you want to call it - local, sustainable, food-systems or value-added - any community that wants to be a significant part of how and what they eat must deal with what happens after the next disaster hits.
Chapter 6
Conclusion and Recommendations

The rapid change of North Carolina’s farm economy has increased the gap between existing disaster assistance programs and North Carolina’s agricultural disaster needs. For North Carolina agriculture to succeed, the change in our safety net must be as radical as the change in our agriculture.

The Challenges

North Carolina farmers have shifted from commodities with an effective safety net toward enterprises with far fewer resources. This increases their vulnerability to inevitable natural and market disasters and limits their ability to access the financial tools they need to grow their enterprises. The problem is especially severe for farmers trying to replace tobacco income with high-value crops.

As the agricultural economy shifts, more North Carolina farmers are growing specialty crops, growing under production contracts, or selling value-added products. These farmers find very few, if any, disaster management and recovery programs that meet their needs.

Specialty crops, such as greenhouse and nursery plants, represent a diversity of crops rather than a single crop, frequently with a range of production cycles that add complexity to the assessment of value and do not fit easily into existing programs. This complexity significantly increases the challenge of creating cost-effective risk management and disaster programs.

Production contracts, characterized by a separation between product ownership and product production, now dominate three of the top five crops in farm receipts in North Carolina. Farmers with current production contracts, especially poultry and hog contracts, experience disaster losses as loss of production income, costs associated with disposal of livestock mortality, costs associated with repair of facilities, and costs from disaster-caused delays in production. These farmers continue to have little in the way of disaster assistance and no federal crop insurance. While

Harold Wright and his grandson, Austin, at Happy Land Farms, Bladensboro, N.C. Happy Land produces pastured pork and organic vegetables.

Like the Wrights, many North Carolina farmers are transitioning from tobacco production to new enterprises. Disaster policy must adapt to meet these farmers’ changing needs.
production contracts are most prevalent in hogs and poultry, they are starting to be seen in other products as well.

Many of the most promising emerging agricultural sectors, including value-added and high-value markets, have woefully insufficient risk management infrastructure. This gap will damage North Carolina farmers’ ability to take advantage of emerging markets, which has significant negative economic development implications for our rural communities. Income from crop value above conventional wholesale market price has not been recognized consistently by the agricultural financial infrastructure in the past, and will have an increasing role in farm income in the future. Not only do current programs not address added value, but the process for developing new programs is currently unable to respond to emerging markets either quickly or effectively.

Filling these gaps will require collaboration between federal, state and local governments and between government and non-government organizations. By understanding the strengths and limitations of each, we can design state and local initiatives that address rather than reinforce existing deficiencies.

**Recommendations**

In order to ensure the continued health and development of North Carolina’s agricultural economy, as great a percentage as possible of North Carolina’s farm income should be covered by crop insurance and other standing programs. Ad hoc programs, which provide flexibility and adaptability, should be used to address specific losses from very new or very specialized types of enterprises, rewarding and supporting farmers who are transitioning to new and promising enterprises. Lastly, state and local governments and nonprofit organizations that encourage farmers to transition to new kinds of enterprises should be prepared to help farmers understand and fill in the gaps in protection until federal programming can catch up.

Developing this stable yet flexible set of federal disaster assistance programs will take three steps. First, more research is needed. Legislators and administrators need accurate data on production and price in existing and new markets in order to develop the actuarial tables that are the foundation of a sound risk management program. Second, existing programs should be adapted, to the extent possible, to the needs of specialty, contract and value-added farmers. Adapting existing programs will provide relatively speedy protection for farmers who are already transitioning to new types of enterprises. Third, new programs should be aggressively developed to meet the needs of specialty, contract, and value-added farmers. Federal, state and local governments and nonprofits should recognize that disaster management is a key component of a stable agricultural economy and should work to provide programming that adequately and dependably protects our changing system.

**More Research**

Many of the gaps in disaster protection outlined in this report reflect an underlying need for information. For emerging markets, the information infrastructure required to develop effective programs does not exist. For the actuarial underpinning of program development and budgeting, un-quantified risk is infinite risk. Legislators and administrators must be able to quantify the benefits and challenges of new types of agricultural enterprises in order to provide appropriate protection. The first step to designing better risk management and disaster
programs for these production systems is a major increase in funding for data collection on emerging agricultural markets and farm enterprise structures at all government levels.

At the federal level, data collection has been developed recently for organic products and markets. This should be expanded for organic agriculture, and widened to include such emerging markets as grass-fed and other specialty meats, local and direct sales of produce, and other production systems that add value to agricultural products. There is precedent for data collection based on specific markets. USDA data on vegetable prices recognize the difference in value between processing and fresh market products, but do not recognize additional markets such as direct markets and production attributes such as organic or grass-fed production.

Price is not the only factor when assessing program effectiveness. More research is also needed into the ways that production and marketing practices reduce risks so that their benefits can be factored into actuarial tables. Disaster programs should reward rather than discourage innovation that reduces disaster susceptibility. For example, the benefits of soil quality and increased soil organic matter in mitigating drought and flood effects are well documented, and these benefits should be factored into the analysis of conservation and disaster programs. Other aspects of production such as crop diversification, distribution of harvest throughout the season either within or between crops, and the concentration or centralization of infrastructure have effects that need more documentation.

As farm enterprises become more complicated, so will the programs that address disaster losses, and the regulations that determine eligibility. Many farmers, especially those who have not participated in federal programs before, will need increased technical assistance in filling out applications and keeping appropriate records. With disaster programs specific, obscure regulations oftendetermine access and cost-efficiency for a range of producers.

Government agencies and non-government organizations need to increase collaboration to test programs in the field with the combined goals of increasing enrollment and providing consistent feedback on programs. As agencies address these issues, each brings specific abilities and limitations. Effective reform requires a circular connection between the grassroots groups and county-level agency staff who can identify the specifics of the problems and work with local farmers, agency insiders who can clarify
programs, identify what can be changed administratively and often provide resources for outreach, and policy advocates who can address changes that must be made at the legislation level. With collaboration, these agencies can complement rather than compete, and can focus on what they do well.

Adapt Existing Programs

Our first line of defense against the effects of weather disasters should be production systems that reduce the vulnerability of agriculture to natural disasters and increase disaster resistance, especially in areas that have a high likelihood of experiencing repeated disasters. Agricultural production programs should encourage rather than discourage diversity and conservation as disaster preparedness. Conservation and disaster programs should be adapted to reward on-farm management practices that reduce risk. For example, the benefits of increased levels of soil organic matter or participation in specific conservation programs could translate into lower crop insurance premiums or greater coverage rates.

Second, we need to increase the efficacy of existing disaster programs for the range of North Carolina agriculture. Changes should maximize coverage by crop insurance and redirect other disaster programs to fill the remaining gaps. Risk management will continue to be the first line of federal disaster aid and should be a major focus for reform and collaboration. Providing effective risk management programs to transitioning farmers will help them access credit and operating capital as well as reduce their losses from disasters.

The AGR and AGR-Lite programs are currently the most promising programs for addressing the needs of the range of producers and addressing the gaps in crop insurance, but both will need significant reform to increase the trust of producers and enrollment. Legislative change is required to address issues of complexity and levels of coverage and to extend AGR-Lite coverage to contract producers, including coverage of loss of income from mortality and from delays in production. During the 2007 farm bill debate, RAFI-USA

A greenhouse grows off-season strawberries at the Cox farm, Tabor City, N.C. Specialized operations like this would be well served by a combination of dependable standing programs and adaptable ad hoc programs.

The discussion of whole-farm revenue crop insurance in this publication should not be confused with the proposals recently introduced in the 2007 farm bill debate that whole-farm revenue insurance replace federal commodity programs. Our advocacy of reform and expansion of whole-farm revenue insurance as a mechanism for providing risk management based on the farmers’ price is not an endorsement of revenue insurance as a replacement for commodity programs. That is a complex issue with many ramifications and beyond the scope of this publication.
staff developed a series of specific proposals to address crop insurance issues for farmers with production contracts or specialty crop and value-added operations, especially for reform of AGR-Lite. These proposals are attached in Appendix C.

**Aggressively Develop New Programs**

While adaptation of current programs can address some of the specific needs, several agriculture sectors will require new programs to address their diversity, complexity and added value. New products need to be developed to meet emerging needs. Federal programs have the resources and reach to create programs that provide meaningful risk management and access to credit for farmers of all types.

Developing new disaster programs is not easy, and will require greater time and effort than development of specific commodity-based products such as crop insurance. Until risk management programming effectively covers the range of farm income, ad hoc disaster programs remain the most effective opportunity for providing disaster assistance to the full range of agricultural producers and types of damage in a disaster. One of the benefits of ad hoc programs is that they can be adapted to address specific needs of farmers in a particular region or disaster, although they are dependent on the political climate of the time and have too often exacerbated rather than addressed gaps in coverage.

Ad hoc programs must cover a variety of losses, including those associated with specialty, contract, and value-added production. For instance, recent provisions in the Emergency Conservation Program that provide assistance to farmers for disposal of animal mortality should be made permanent. There is precedent in existing disaster programs to meet some of the needs of transitioning farmers, although they are not consistent across programs and over time. For instance, disaster programs already recognize and adjust for rental and shared ownership arrangements, and can be adapted to recognize emerging ownership structures.

Programs and policies also need to be developed to allow agencies to prepare to more effectively manage the kind of complex programs that new enterprises will require. For example, in the current system, disasters could add significant caseload to already under-staffed county-level agencies. Mobile disaster teams can be developed that administrate specific programs wherever they are needed to retain experience, increase efficiency and reduce load on local staff.

**State and Local Initiatives**

State and local governments, recognizing that federal programs will be unable to keep pace with new markets and farmer innovation, should focus on developing programs to cater to local needs that slip through the federal safety net. Current state and local programs tend to be based on federal programs, adding on to rather than complementing federal payments. There are several good reasons for this: federal programs provide accessible data and loss documentation with a minimum of administrative costs; even farms that are eligible for disaster assistance still have unmet needs; the participants are most likely to be participants in agency programs and therefore known to local staff. However this approach, although sometimes warranted, perpetuates rather than fills the gaps in the federal safety net.

With the correct support and some cooperation, state and local initiatives can shift their focus and assist transitioning farmers. State and local efforts allow municipalities to identify agricultural sectors that are important to the local economy or community, but that do not rise
to the level of national importance. For example, in the winter of 2001, the North Carolina Rural Center administered a program to dispense remaining state funds earmarked for farmers who suffered damage in Hurricane Floyd to those who had “fallen through the cracks.” The program’s design and implementation were developed by a collaboration of state and non-government agencies, including the North Carolina Department of Agriculture and Consumer Services, North Carolina Cooperative Extension Service, the North Carolina Farm Bureau, the Land Loss Prevention Project and RAFI-USA. The relatively small scale of the program allowed greater flexibility in acceptable documentation, and allowed the program to target enterprises that were unable to access federal or existing state programs.

In some cases, local municipalities have become involved in addressing local needs. Following a hard freeze during January of 2007, the city of Fresno, California recognized the needs of farmers selling in local farmers markets and developed programming specifically aimed at maintaining this important local resource (see sidebar at right).

Because risk management programs also provide farmers with access to credit, state and local initiatives can play an important role in helping enterprising farmers access loans and operating capital, at least until federal programs can provide sufficient, dependable risk management that expands farmers’ access to traditional financing. Programs need to be created that address the gaps in economic infrastructure that mirror the gaps in disaster programs. In the absence of federal programs, state or local agencies or private organizations can create mechanisms that provide levels of risk management for farm enterprises that are important to economic development. For instance, North Carolina agricultural bankers involved with RAFI’s Farmer and Lender Project said that providing loan guarantees, interest assists, or other mechanisms that reduce risk for banks could greatly increase lenders’ ability to support farmers’ transitions to value-added markets. Private foundations can also be effective both in how they grant, and in how they invest. Foundations can leverage conventional capital through investments in non-profit work and through program- or mission-related

Local Solutions

Between January 11 and 17, 2007, crops in areas of California’s citrus production endured consistent night-time temperatures in the 20’s, destroying much of the area’s citrus and vegetable crops and causing more than $1.38B in damage. The response to this freeze demonstrates the ability of state and local governments to extend the reach of federal assistance and to bring relief to farmers who would otherwise go unaided. Following a Presidential disaster declaration, federal aid was available in the form of emergency loans through the Farm Service Agency. To increase the reach of these loans, the state created a loan guarantee program for agricultural enterprises through the Small Business Administration. The city of Fresno, recognizing that many of the Hmong farmers who sold in Fresno farmers markets were unable to access these programs, collaborated with local banks to create the $500,000 Small Farmer Emergency Business Loan Program to provide no-interest loans to farmers in Fresno who could not get financing elsewhere.
investments in value-added processing, pilot programs and other innovative, essential projects. All of these increase the farmers’ ability to access capital and facilitate the transition to more sustainable agriculture.

Towards a Promising Future

Disasters will remain an inevitable part of farming. So will structural changes in ownership, products and markets. A thriving agricultural economy must provide farmers with the ability to weather disasters and the opportunity to pursue new and promising approaches. Our current system of disaster management fails to protect a growing number of farmers and consequently denies them adequate access to credit and places them at a distinct economic disadvantage. Through research, adaptation, and new program development, disaster programming can change to meet the evolving needs of North Carolina’s farmers.

After each disaster, farm families across North Carolina sit down at their kitchen tables to figure out how to recover their losses and go forward. For an increasing number of families, the best and sometimes only option is to leave farming. Better disaster management can change the view from those tables. It can help North Carolina farmers stay on the land and help our changing rural economy thrive.

Sunset at Scott Farm, Jones County, N.C.
End Notes


3 Whole Farm Approach to a Safety Net. EIB-15. USDA ERS.

4 Damage to poultry houses was covered under an emergency conservation program appropriation after Hurricanes Katrina and Rita.

5 Of the 2,466 NC farms that produced 739.6 million broilers and other meat-type chickens, 2,427 farms grew 739.5 million chickens under production contracts, 2002 Census of Agriculture, USDA National Agriculture Statistics Service.

6 Independent producers make up almost half of all hog farmers in North Carolina, yet they produce far fewer hogs per farm. 2002 Census of Agriculture, USDA National Agriculture Statistics Service.

7 U.S.D.A. Bulletin no.: MGR-07-004, 3/23/07


22 A fact sheet on NAP is available from the Farm Service Agency web site at http://www.fsa.usda.gov.


54


31 For a more in-depth description of disaster programs including eligibility, deadlines and coverage, see “The Farmers Guide to Disaster Assistance” and other disaster publications available from the Farmers Legal Action Group (FLAG) on their web site at www.flaginc.org.

32 A fact sheet on Emergency Loans is available from the Farm Service Agency web site at http://www.fsa.usda.gov

33 A Fact Sheet on the Emergency Conservation Program is available from the Farm Service Agency web site at http://www.fsa.usda.gov.


42 P.L. 106-113 Appendix V, Title I, Chapter 1, 113, stat. 1501 (Nov. 29, 1999)

43 7C.F.R. § 1439.401 to 1439.408 (2001)


46 7 C.F.R. § 1480.12(d).
### North Carolina’s Disaster History: Major Disaster Declarations

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Source: [http://www.fema.gov/regions/iv/disasters_region4.fema#NC](http://www.fema.gov/regions/iv/disasters_region4.fema#NC)
## Appendix B

**Crops with Crop Insurance Policies in North Carolina**

<table>
<thead>
<tr>
<th>Crops</th>
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<td>Grain Sorghum</td>
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<td>Grapes</td>
<td>Wheat</td>
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<td>Nursery Plants</td>
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</table>
In our experience with farmers who have evaluated AGR – Lite crop insurance for their farms, and in the experience of officials that we have consulted with who have assisted farmers in North Carolina and several other states with this program, there are several aspects of AGR and AGR-Lite that cause difficulty for farmers.

The threshold concern is the inherent complexity in the program. The program requires significant documentation. As a part of the application, the farmer must submit 5 years of form 1040 Schedule F. The farm plan and farm reports can wait until the adjustment process, but this may cause problems, and insurance agents who sell the program often request this documentation at the time of application.

There may be ways to simplify the forms, but the requirement that the farmer demonstrate both historical gross income and the capacity to produce that income during the insurance year cannot be escaped. This issue should be addressed by significant outreach and education, including clear information about required documentation and program specifics.

But outreach and education alone will not solve the difficulties. The number of program participants is declining, suggesting that farmers have used the program and it did not meet their needs. There are several aspects of the program itself and the manner in which the program is being implemented that can be simplified and shifted to correct this problem.

1. **Assure access to trained Crop Insurance Agents or provide alternative access to the program.** Many farmers seeking information and assistance on AGR-Lite have reported finding it difficult to identify trained insurance agents to assist them in the application process. Many of the farmers with whom my organization has worked received delayed, discouraging or erroneous information as a result of their initial contact. Other areas of the country have also had challenges with identifying trained insurance agents that were both knowledgeable and willing to assist farmers with the application process.

   Because AGR and AGR-Lite are critically important programs, and the only programs available to insure a significant percentage of farm income, we believe that in the absence of trained insurance agents within a given county who market this program effectively, the Farm Services Agency (FSA) office of that county should be allowed to provide access to the program, much in the same way that they currently provide access to the Non-insured Disaster Assistance Program (NAP). The FSA administers NAP in order to assure access to risk management products by farms that are not served by crop insurance, and we believe that they should have the opportunity, determined on a county-by-county basis, to provide AGR and AGR-Lite for the same reason and in the same way.

2. **Clarification of insurable income and inclusion of on-farm processing as insurable income.** A second source of confusion for farmers is the delineation between the value of the crop as it comes out of the field which determines insurable income, and income attributed to post-harvest processing, which is considered uninsurable. To illustrate, under the current policy standards, if a farmer puts their cabbage in a box for market, the value of that box is not insurable and must be subtracted from the farmer’s insurable gross income even if the cabbage is not marketable without the box. To truly work as an effective risk mitigation tool for farmers, income insurance must include the minimal processing such as washing, bagging or boxing that is required to access given markets.

   The more complex processing that takes place on-farm, usually by small-scale producers selling to direct markets such as roadside stands or farmers markets, should also be taken into consideration for income determination purposes under the program. Income produced through value-added activities such as turning fruit into jam, vegetables into...
pickles, or milk into cheese is currently not eligible for consideration under the program. For small-scale producers, this on-farm processing is integral to farm income, and is not an aspect of production that can be readily removed from income estimates. Farmers should therefore have the opportunity to include this income in their AGR-Lite policy.

3. **Require set level of coverage at time of application.** An additional complaint we have heard from farmers concerns contracting for a set amount of coverage, only to find during claims adjustment that specific requirements of the program not made clear during application makes them eligible only for a lower level of coverage. The result is a reduction of payment after the loss to an amount much less than that on which the farmer had relied.

We believe that once the underwriter agrees to a level of coverage during the application process, that level of coverage should not be changed for reasons other than fraud or failure to abide by the farm plan, as long as the farmer has made a good-faith effort to produce the income and has informed the crop insurance agent of necessary changes in a timely manner. The creation of this level of certainty in the contracting process would greatly increase farmer confidence in the program, and would significantly simplify the claims adjustment process.

4. **Increase level of coverage.** Gross income coverage under AGR-Lite is currently capped at 80 percent coverage (75 percent for producers of a single crop) with 90 percent payment rate, or effectively 72 percent. In an individual crop policy, a 20 or 30 percent loss frequently equals a far smaller reduction in gross income because the farmer will take steps to replace lost income from other crops or enterprises. Therefore individual crop losses addressed by crop specific crop insurance are often less dangerous to the overall financial solvency of the farm. Gross income losses of 20 percent, on the other hand, include all loss mitigation and are frequently devastating. It is therefore necessary for AGR and AGR-Lite to provide higher rates of coverage, preferably as high as 95 percent coverage with a 100 percent payment rate, in order to assure farm survival.

5. **Include crop insurance and Non-insured Disaster Assistance Program payments in 5-year income average.** One of the benefits of the AGR-Lite program is that it can be combined with crop insurance products for specific crops. For instance, a farmer with corn and mixed vegetables that are sold at a farm stand can get APH or income-based crop insurance for his corn, and combine it with AGR-Lite to provide risk management for the rest of his income. However, under current regulations, crop insurance and NAP payments are counted when determining AGR-Lite benefits, but are not used to determine the farmer’s 5-year income average. Failure to include insurance and NAP payments significantly reduces the farmer’s average gross income, and therefore the farmer’s coverage. Crop insurance and NAP payments should either count for both payment and average income determinations, or should count for neither.

6. **Strengthen the policy regarding establishing local market value, particularly for direct marketers.** Currently, AGR-Lite policies aver that if published prices are not available, then the average price offered by two commercial buyers, one nominated by the policyholder and one by the insurance company, should be used. This should be refined in two ways. First, when local market values are being determined for producers engaged in direct marketing, other local markets and not commercial buyers should be supplying average price estimates. Second, the product value used to estimate the revenue in the producer’s intentions report for the current year should be decided at the time the intentions report is filed, otherwise the producer loses the price fluctuation protection afforded by the policy.

7. **Definition of ‘Animals’ needs to be revised to ensure it is inclusive of production agriculture.** The current programmatic definition of “animal” is “living organisms other than plants or fungi that are produced or raised in farming operations including, but not limited to, aquaculture, bovine, equine, swine, sheep, goats, poultry, aquaculture species propagated or reared in a controlled environment, bees, and fur bearing animals, excluding
animals for sport, show, or pets.” The definition should be clarified to ensure that livestock engaged in contract production agriculture falls within the meaning of the term “animals” and is eligible for loss indemnity under the AGR-Lite program.

8. **Develop mechanisms to extend AGR and AGR-Lite to new and beginning farmers so they have the opportunity to utilize federal risk management programs.** Access to risk management programs is especially important to beginning farmers. USDA already has provisions to support beginning farmers in their lending programs, and risk management is very important for access to credit. Strong consideration should be given to permitting beginning farmers and ranchers to have protection and premium rates established based on information for similar farms that have sufficient historical information to meet the requirements of these insurance plans.

9. **Clarify and simplify procedures for documentation of carryover inventory documentation.** Carryover commodities still in the production phase present some unique beginning and ending inventory challenges. The inventory rules should be reviewed to ensure the procedures provide clear directions on how to handle these commodities. In addition, clarity should be provided as to whether or not coverage is provided for these commodities including Christmas trees, shellfish, nursery, and livestock.

10. **Add a “floor” to the 5-Year income history used to determine coverage levels.** Low revenue can reduce the approved AGR to the point where the insurance will not provide adequate coverage. This is especially important in areas of the country that have seen multiple disasters in the past five years. One possibility to address this issue is to maintain the 5 year Schedule F average, but allow up to 10 years if available to decrease the effect of individual disaster years.
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