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Risk Management Strategies in Use on Vermont Farms

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Abstract
Vermont farms suffered significant crops losses in 2011 from spring and fall flooding. As leaders organized to assess damages following widespread flooding from Tropical Storm Irene and it became clear that a large number of farms were not enrolled in formal crop insurance programs. This research documents the risk management strategies in use by 50 farms in Vermont. Only thirteen surveyed farms enrolled in crop insurance programs in the past 2 years. Diversification, non-farm income from owners and development of a pest/disease management plan were the most common production risk management strategies in use on these farms.

Introduction

In the fall of the 2011 The Post-Irene Farm Technical Assistance Working Group was formed to assess and act upon the short term needs of farms that suffered weather related damages from Tropical Storm Irene. The storm dropped up to 12 inches of rain throughout the Green Mountain State and downstream rivers swelled over banks quickly. Over 476 farms reported damages to farmland, buildings, equipment, growing crops and livestock due to the heavy rains, wind and flooding. Reported damages totaled 7,200 acres of hay, over 6,000 acres of corn, 600 acres of vegetables and fruits and 225 acres of soybeans. Six months after the storm event, the working group developed and distributed a crop risk survey throughout the state to gather input from farm owners on how they are managing crop risk on the farm. The results of this survey are presented in this report.

The Post-Irene Farm Technical Assistance Working Group included representatives with expertise in farm lending, grant making, crop insurance, food safety, business management, law and education. Early meetings with the group recognized the opportunities for farms to manage risk and become eligible for disaster assistance through the use of crop insurance products from the USDA Farm Service Agency. Discussions also documented the anecdotal lack-of-understanding among many farmers about various crop insurance and the presumed barriers that left farmers unsatisfied with the coverage of these products. It was quickly realized, however, that farms were using a variety of mechanisms other than insurance to mediate production risk on the farm. A survey was designed to understand the scope of risk management techniques available to farms and to evaluate farmer feedback on current crop insurance products.

Methods

In January 2012, UVM Extension distributed a crop risk survey specifically focused on "production risk". The survey was focused on the risk to crop yields and quality due to weather, pest and diseases. This survey did not specifically address other common farm risk management categories (market risk, financial risk, institutional risk and human risk).

This survey was designed to answer the following questions:

1. What methods are Vermont farmers using to manage production risk and which methods are the most successful for them?
2. Do producers have appropriate crop insurance options available?
3. Are there segments of the farming community that are underserved by current crop insurance options?

The survey was intended to reach a broad audience that represented the diversity of farm types in the state. The survey was distributed in paper form and through an online version. The survey was distributed by paper copy at several conferences and agricultural events from January – February 2012.

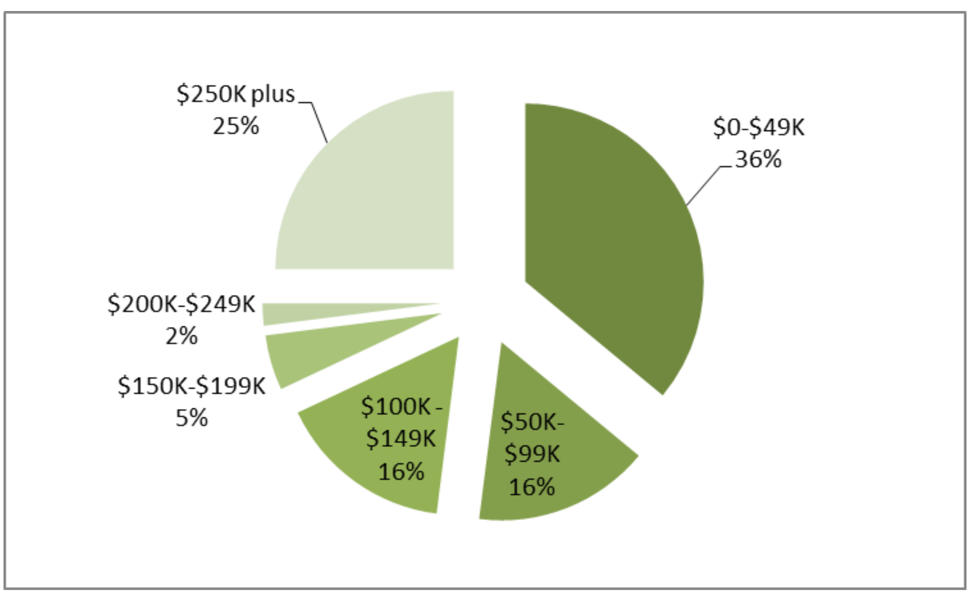
These events included the VT Farm Show, The VT Dairy Conference, NOFA VT Winter Conference, VT Grass Farmers Conference and several educational workshops sponsored by USDA Risk Management Agency (RMA). An online survey was developed and made available on the Survey Monkey ™ online survey platform. E-mail notifications were sent out to list serves coordinated by the following groups: VT Maple Sugarmakers Association, VT Agency of Agriculture, the VT Vegetable and Berry Association, the VT Grass Farmers Association and the VT Grape and Wine Council. Forty two surveys were completed online through Survey Monkey and eight surveys were returned in hard copy through postal mail.

Results

Respondent Profile

Fifty surveys were returned and forty eight (48) surveys were usable for analysis. Farms responded from 12 of 14 counties with no returned surveys from Caledonia or Essex County. Survey response came from a diverse mix of farm types and managers. Over half of responses came from managers with over 15 years of experience farming commercially (55%). Farmers with 0-5 years experience made up 21% of responses, 16% were farmers with 11-15 years experience and 9% with 6-10 years experience. The average of total farm acres was 284 acres for all responses with an average of 171 acres in crops. The two most represented farms types as described by their major product is "milk" producers (40%) and vegetable and herb producers (43%). Farm gross sales was closely split between farms posting gross sales from $0 -$49,000 (36%) and farms with gross sales over $250,000 (25%) (see Figure 1). When asked what percentage of household cash income comes from the farming activities, the largest group of responses (34%) said less than 25%.

Figure 1: Annual Gross Sales in 2011



Only 5 farms, or 11% of responses for this question, generate 100% of household cash income from farming. A total of fourteen farms (32%) are included when we combine the highest two categories that span 75%- 100% of household income from the farm. The remaining farms reported an even spread of household cash income from farming of between 25% and 99% of household cash.

Crop Insurance Enrollment

Eleven farms (22% of the eligible responses) reported enrollment in crop insurance programs within the past two years (2010 or 2011).Twelve farms indicated that they had made contact with a USDA FSA office about crop insurance within the past two years and prior to Tropical Storm Irene. After the storm, only one additional farm (13 total) indicated having contact with a USDA FSA office about crop insurance. Similar findings were seen regarding contact with independent agents that sell USDA Risk Management Agency (RMA) crop insurance products.

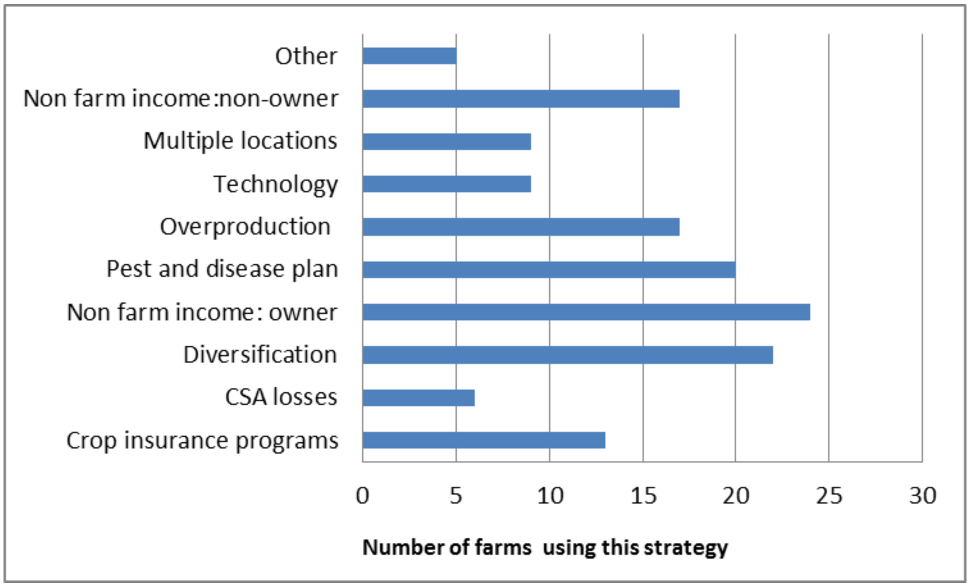
Risk Management Strategies

The three most common causes of damage to crops/livestock that have occurred on one farm more than once within five years were:
#1: "flooding or excess moisture" (56%)
#2: "pest and disease pressure" (48%)
#3: "high winds" (41%)

When asked to indicate all the risk management strategies employed on the farm to mediate crop production risk, the most commonly cited strategies were:
#1: non-farm income from owner (51% of responding farms)
#2: diversification (44% of responding farms)
#3: pest management plans (44% of responding farms)

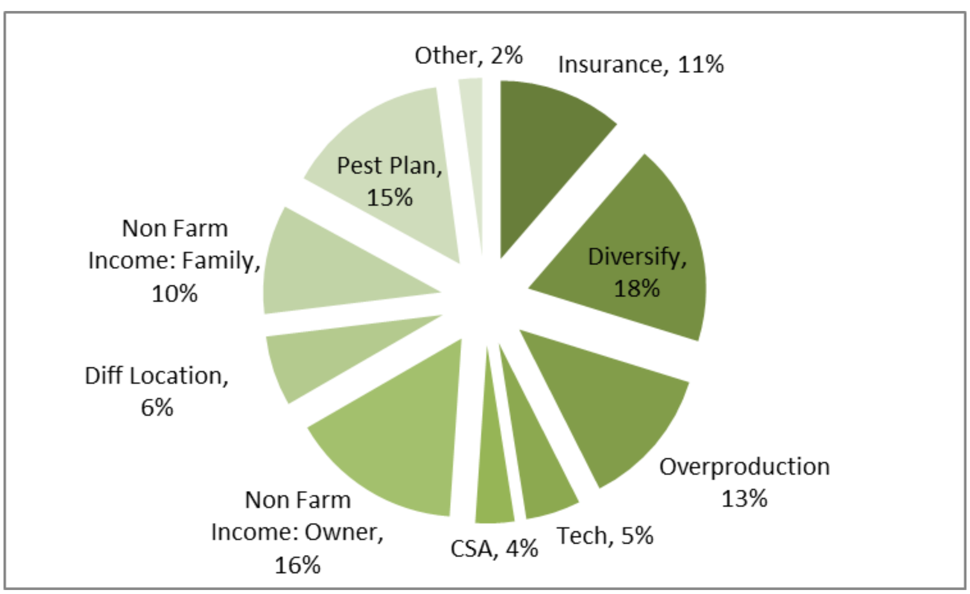
The use of crop insurance products was the 6th most common strategy out of the 10 options (Figure 2). In a similar question, managers were asked to rank the top four preferred crop risk management strategies on their farm from a list of same 10 options. The following strategies were most commonly first as the best strategy:
#1: Diversification (27%)
#2 Non-Farm Income from Owner (12%)
#3a: Pest and Disease Management (5%)
#3b: Crop Insurance (5%)

Figure 2: Use of Risk Management Strategies in 2010 and 2011



Next, the total number of 1-4 rankings for each strategy was totaled. Figure 3 demonstrates the percentage of 1-4 rankings assigned to each strategy from 46 responding farms. The top three strategies were diversification, non-farm income from owner and pest/disease management plans. Within the analysis, a subgroup of 24 farms that had experienced flood or moisture damage more than once was separated. In this group, "overproduction" was cited as the second most important strategy after diversification.

Figure 3: The "Best" Risk Management Strategies (46 farms, 141 rankings)



Popular Programs

The most common programs for enrollment listed in this survey were Milk Income Loss Contract (MILC) and Noninsured Crop Disaster Assistance Program (NAP). Thirteen farms had been enrolled in NAP and thirteen had been enrolled in MILC.

Crop Insurance Participants

Of the thirteen farms that have enrolled in NAP since 2010, nine of the farm owners have been farming commercially for over 15 years. These thirteen farms average 714 total farm acres and 501 acres in crops. This is over double the overall survey average of 284 total farm acres and almost triple the average 171 acres in crops. Seven farms (58%) identified their major product to be milk, five farms (42%) produced vegetables /herbs and four farms (34%) produced beef as their primary product. Seven of these farms posted gross sales of $250,000 and greater in 2011. The remaining six farms were spread evenly in lower gross sales categories ($0-$49K, $50K-$99K, $100K-$149K and $200K-$249K). There were 5 farms in this survey that reported generated 100% of their household income from farming activities. All of these 5 farms have been enrolled in NAP in the past 2 years.

Thirteen farms also indicated enrollment in them MILC program since 2010. Several of these farms were the same farms that enrolled in NAP. All of these farms identified milk as their primary product. As a group they averaged similar land holdings and crop land acres as the NAP group (714 total acres and 512 crop acres). Again, these farms are using a much larger amount of land compared to our entire survey group. Seventy percent of this group has farmed commercially for more than 15 years. The only major difference between this group and the NAP group was that a smaller percentage in this group earned 100% of household cash income from farming operations. The largest portion of the group (38.5% or 5 farms) reported 75%-99% of household income from farming, 3 farms (23%) earned 100% of household income from farming, 2 farms earned 50%-74% of income from farming, 2 farms earned less than 25% from farming and 1 farm earned 25%-49% of household income from farming.

A smaller number of survey respondents had enrolled in other crop insurance programs since 2010. Six farms had enrolled in the Emergency Conservation Program (ECP) and six farms had enrolled in the Supplemental Revenue Assistance Payments Program (SURE).

Reasons for Not Enrolling in Crop Insurance Program

This survey captured 26 responses from farms about why they do not enroll in crop insurance programs. The responses are as diverse as the farms that post them. The three primary feedback topics that emerged were:

A) Uncertainty about crop insurance options for sap or maple producers
B) Eligibility for AGR-Lite (Adjusted Gross Revenue)
C) Insuring multiple plantings on vegetable farms
D) Insurance products did not adapt to “my farm”

Four farms producing maple syrup were not aware or only recently became aware of programs available for maple production. Four farms indicated that they did inquire about AGR-Lite programs but did not sign up due to eligibility criteria. One was a CSA farm and another was a new farm without the needed 5 years of historical records for this program.

The survey also captured comments from four vegetable producers that voiced either uncertainty or complaint about adapting NAP coverage for multiple crop plantings of the same crop throughout the year. Managers expressed the desire to have these separate plantings considered as separate crops under NAP. This would transfer a greater portion of crop loss risk to the insurance plan if any one planting was subject to significant loss rather than blend the risk over the entire years production of one crop. *[Note: further proceedings of the working group discovered that some insurance agents were able to establish separate NAP coverage plans for individual plantings (spring or fall) of the same crop).]*

Four farms responded that insurance products did not fit "my farm". In some cases these respondents self-identify as "small farms" from other questions in the survey.

Crop Insurance Outreach

The vast majority of respondents were satisfied with their interactions with FSA staff or private agencies selling crop insurance products. All but one of the farms that had interactions with FSA reported that FSA was able to answer their questions and they were respectful to the individual and the business. Nine out of 48 farms answered that FSA did not do a good job making them aware of the programs FSA offered. Eight of these nine farms produced vegetables and/or fruits and half of them were small farms that generated less than $50,000 in annual gross sales.

Discussion

This survey reached a broad audience of different types of farms. Large farms, small farms, dairy farms and diversified operations across the state contributed to this research. Through the results, one observes that there are many farm typologies and owner characteristics that relate to how the business manages risk. This highlights the complex interaction of operational typology, farm scale and household income dynamics in the risk management decisions of farm managers. There is clearly a subset of vegetable producers that seek to have the NAP insurance program more adaptable to their crop plans and several other farms that see promise in the AGR-Lite program.

This survey observed the same level of contact between farms and USDA FSA before and after Tropical Storm Irene. This suggests that the weather event itself did not prompt new farms to seek more information about crop insurance. This survey was closed in late February 2012. Since this was still a few weeks prior to crop insurance enrollment deadlines we cannot accurately report if these farms did seek out crop insurance for the 2012 season. Still, this survey shows a large number of farms (33 out of 48) that have decided that crop insurance in its current form does not present as much value as other risk management strategies. Table 1 below provides an overview of this group of 33 respondents.

Table 1: Overview of farms that are not contacting FSA after Tropical Storm Irene (33 farms)

39% have experienced crop loss due to flood or excess moisture more than once in the past 5 years
60% utilize non-farm income from owner to manage risk
46% generate gross sales under $50,000 per year
43% generate less than 25% of total household income from farming activity
50% have been farming 15 years or more

This survey was able to collect critique about crop insurance programs. Comments came in 2 forms on this survey: misunderstanding about program offerings and technical details of specific programs. The responses indicate opportunity for more outreach on programs to certain groups. This includes sugarmakers, small farms that may have inaccurate perceptions of program details and larger operations that are not familiar with what appears to be relatively inexpensive catastrophic insurance.

This survey sheds some light on the ongoing questions about management behaviors in relation to the scale of farm and the reliance of the owners on the farm for household income. This survey clearly shows that farms larger in size with households that are reliant on farm income are more likely to purchase crop insurance products. Their counterparts are farming a smaller acreage, less reliant on farm income to support the household and more reliant on off farm income. What is not clear from this survey, is whether these smaller business that are managing risk actually seek to have crop insurance products improved and accessible to their farms. Comments from respondents clearly indicate that they currently recognize more value from other risk management strategies. The developers of crop risk insurance are now charged to determine if they can design or adapt insurance products that can compete with the numerous management strategies already in use by farms in Vermont.