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# Staff Paper

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## **Specialty Crops and the 2007 Farm Bill: The Potential Role of Farm Savings Accounts**

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# Specialty Crops and the 2007 Farm Bill: The Potential Role of Farm Savings Accounts\*

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## Overview

This paper discusses the findings of a research project that examined the potential benefits of establishing farm savings accounts for specialty crop growers<sup>1</sup>. The primary goal of the project was to determine whether farm savings accounts would provide specialty crop growers with a useful tool for managing financial risk. The project examined how various farm savings account proposals ultimately impacted the benefits that specialty crop growers would receive from the accounts.

## Farm Savings Accounts

Managing the financial risk associated with farming is a central concern for farmers. Farm revenue insurance products have shown promise in helping farmers manage income risk and comprise an important component of the federal farm safety net. However, there is evidence that specialty crop growers are not completely satisfied with the risk protection provided by existing crop insurance policies (White, Uva, and Cheng, 2003). Farm savings accounts are a related product that may have considerable appeal to specialty crop growers.

Farm savings accounts are based upon the idea of providing producers financial incentives to set aside funds in high income years for use in low income years. Like revenue insurance products, most farm savings account proposals rely upon tax records to determine eligibility for contributions and withdrawals from the accounts. Unlike revenue insurance products, the producer does not pay a premium, but rather places funds in a deposit account. These funds remain the property of the producer. Additionally, deposits to the account may be tax deferred, and/or matched by a deposit from the government. Although the cost of a savings account program will depend upon the specific design, farm savings accounts may also appeal to policy makers because the cost to the federal government is likely to be relatively low compared to direct subsidy programs and emergency financial assistance.

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<sup>1</sup> Gloy and Cheng provide a complete description of the study.

A variety of farm savings accounts proposals have been advanced in the United States and in other countries<sup>2</sup>. The general idea behind farm savings accounts is to provide farmers incentives to save funds in high income years for use in low income years. The most commonly suggested incentives include tax deferral and/or a government matching deposit. Proposals for matching deposits often contain provisions that limit withdrawals from the accounts to years in which income falls below a specified trigger level.

The research project evaluated two specific proposals, counter-cyclical farm savings (CC) accounts and farm and ranch risk management (FARRM) accounts. Both proposals require that the farmer deposit funds into the account. Under the counter-cyclical savings accounts program, eligibility is based upon gross income, the government would match the farmer's deposit up to \$5,000, and farmers could withdraw when gross income fell below a specified trigger level. For FARRM accounts, eligibility to participate was based upon positive net income and deposits were not matched, but rather were tax deferred. Withdrawals from the accounts were evaluated using various historical gross income trigger levels.

### Objectives of the Study

The analyses of the programs focused on addressing four broad questions. Specifically, the study analyzed:

- 1) the ability of farmers to contribute to FARRM and CC accounts;
- 2) withdrawals from and benefits obtained by contributing to FARRM and CC accounts;
- 3) the impacts of the FARRM and CC accounts on income stabilization; and
- 4) critical program features.

### Data and Method

In order to evaluate the effectiveness of the program for specialty crop growers the case of grape farms was considered<sup>3</sup>. The study used data collected by Lake Erie Grape Farm Cost Study (LEGFCS) to analyze the proposed farm saving account programs (White and Shaffer). The five year panel data set contains the financial records of 32 grape farms that had completed the survey for each of the years 2000 to 2004. These farms specialize in the production of native variety grapes (Concord and Niagara) which are used for juice. The data collection was based upon tax information on the growers' 1040 Schedule F (Shaffer and White, 2003).

The historical financial data for the grape farms was used to quantify the ability of farms to participate in the programs, the potential magnitude of deposits and withdrawals to the accounts, and the potential risk reduction provided by the accounts over the period from 2000 to 2004. The results of the study provide several important findings regarding the potential benefits of farm savings accounts for specialty crop farms.

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<sup>2</sup> Edelman, Monke, and Durst; Monke and Durst; and Ellinger and Gloy provide a discussion and analysis of the various types of farm savings account proposals. Makki and Somwaru describe farm savings account experiences in Canada and Australia.

<sup>3</sup> For research on how savings accounts would impact dairy farms see, Gloy, LaDue, and Cuykendall or Enaharo.

## Eligibility to Make Deposits and Magnitude of Deposits

*Key Finding: The eligibility rules for the proposed CC accounts are not restrictive as most farms would be eligible to make a contribution every year. The positive net income eligibility criterion for FARRM accounts is much more restrictive and will significantly reduce the number of farms eligible to contribute to savings accounts.*

The results of the study indicated that 90% of the farms would be eligible to contribute to CC accounts in all five years of the study. This is not surprising because eligibility only required 1040 Schedule F gross income in excess of \$50,000. Eligibility to make deposits to FARRM accounts was noticeably lower as this program required the farm to have positive 1040 Schedule F net income. In the case of FARRM accounts only 36% of the farms would be eligible to make deposits in all 5 years. However, all of the farms were eligible to contribute to FARRM accounts in at least one year and 87% were eligible to make deposits in three of the five years.

*Key Finding: The average annual farmer contribution to CC accounts was \$3,042. Based on a maximum deposit rate of 2% of gross income, many of the specialty crop farms in this study were unable to take advantage of the full \$5,000 government match. In other words, many had sales less than \$250,000.*

For the case of CC accounts, farms were allowed to contribute 2% of gross income up to a \$5,000 cap. The analysis shows that on average, 21% of farms in the entire period could contribute \$5,000 to take full advantage of the maximum government matching deposit. The average deposit over the period was \$3,042. With the government match this would result in an average annual deposit to the account of \$6,084.

*Key Finding: Many farms have little incentive to participate in FARRM accounts because the incentives are based completely on tax deferral. Based on farm income alone, nearly half of the farms are in 10% or lower marginal federal income tax bracket.*

There are two important financial incentives to encourage farmer participation in FARRM accounts. The most basic benefit is the deferral of tax liability for one year or more. The ability to defer taxes to a tax year in which the farm is in a lower tax bracket would result in lower taxes, creating an incentive for contribution to a FARRM account. For instance, a farmer could contribute to a FARRM account in a year in which the income would be taxed at the 27% marginal tax bracket and then withdraw the funds in a year where they find themselves in a lower tax bracket. Second, the farmer is able to invest the deferred taxes, earning interest on the balances. The results of the study show that this benefit is quite small on average due to relatively small balances and low interest rates.

*Key Finding: Larger and more profitable farms will receive the greatest benefits from the FARRM account program because these farms are more likely to be in higher marginal tax brackets.*

The marginal tax bracket plays a critical role in determining the value of FARRM accounts. The greatest benefit obtained from FARRM accounts occurs when farmers can contribute in years with a high tax liability and withdraw in years with a reduced tax liability. Although most farmers have a positive net income, many face a relatively low marginal tax rate. Based only on farm income, 24% would typically be found with a 0% marginal tax rate, meaning that they would owe no federal income tax, and 20% would find themselves in the 10% marginal tax bracket. This would significantly reduce their incentive for participation in the program. On the other hand 16% of the farms generated farm income that would place them in the 27% federal tax bracket. These farms would have a much greater incentive to participate in the program. This structure makes the program of much more value to large and profitable farms.

*Key Finding: The average FARRM account deposit was \$4,526. When the government match is considered, the average CC account balance was larger than the average FARRM account balance. However, as modeled, the FARRM account balances are more variable and large farms are able to place considerably more funds in FARRM accounts than in CC accounts.*

Farms were allowed to place up to 20% of 1040 Schedule F Net farm income into FARRM accounts, without regard to their current tax bracket. The average amount of funds deposited by the farmer was greater under FARRM accounts than for CC accounts. Here, the average annual deposit was \$4,526. Because the farmer's deposit was not matched, the total amount placed in the account was generally lower for FARRM accounts than for CC accounts.

#### Withdrawals from Savings Accounts

*Key Finding: Withdrawal provisions are critical. If withdrawal triggers are not indexed to allow for growth, few farms will be able to make withdrawals. Restrictive withdrawal rules will significantly reduce the appeal of the accounts as a risk management tool.*

While the FARRM account proposal allows farmers to make withdrawals at their discretion, the CC account proposal places conditions on when the farmer can make a withdrawal. The results of the study indicate that this is a critical feature of the CC program. Higher gross income withdrawal triggers increase the likelihood that a farm can make a withdrawal. For instance, an 80% gross income trigger would typically allow 8% of the farms to make a withdrawal in a given year and a 90% trigger would allow 20% to make a withdrawal. Additionally, indexing the gross income trigger to adjust for changes in farm size allows more farms to make withdrawals. Here, 30% of the farms

would be able to make a withdrawal under an 80% indexed gross income trigger and 52% would be able to make a withdrawal under a 90% indexed gross income trigger.

*Key Finding: The use of a net income trigger versus a gross income trigger does not appear to significantly alter the likelihood of making a withdrawal. As a result, a gross income trigger is likely preferred because it is more easily indexed than a net income trigger.*

The analysis of the FARRM account program included a comparison of withdrawals under both gross and net income triggers. When a 90% indexed gross income trigger was used, slightly over half the farms were able to make a withdrawal. A 90% net income trigger resulted in 48% of the farms being able to make a withdrawal.

*Key Finding: Farm savings accounts show some promise in addressing income variability, but restrictions on the size of the deposits limits their ability to completely mitigate income variability. Many farms will still experience considerable income variability. The accounts also appear unable to handle back-to-back adverse financial outcomes.*

The ability of the accounts to manage income variability was assessed by comparing the amount by which income fell short of the gross or net income trigger level with and without the accounts. While some farms could build positive account balances over the 5 years of the study, a significant number of farms that experienced a drop in income sufficient to trigger a withdrawal did not have a large enough account balance to resolve their income shortfall. Under a 90% indexed income withdrawal trigger, nearly 40% of the farms would be unable to completely manage their income shortfall with the CC savings account. Additionally, the resulting zero balance in the savings account would leave these growers with little financial protection for the next year. Still, the CC accounts reduced the typical shortfall from the income trigger by 25 to 46%, which shows considerable promise in managing income risk. Similar results were found for the FARRM accounts, although the reduction in income was slightly smaller due to smaller account balances.

Although many farms did not have sufficient funds to manage their income risk, many finished the five year study period with positive account balances. Including the government match, the average ending balance in the CC accounts with a 90% indexed income withdrawal trigger was \$9,425. The ending balance in the FARRM accounts with a 90% indexed gross income withdrawal trigger was \$7,199.



*Key Finding: Unless larger subsidies are offered, savings account programs are unlikely to provide a complete risk management solution for specialty crop growers. Additionally, for widest appeal the program should combine both government deposit matching and tax deferral of deposits.*

While the savings accounts were able to reduce income variability, the funds in the accounts were often insufficient to completely mitigate income variability. While the tax deferral benefits of the FARRM account will appeal to high income farms, the relatively small amount government matching for CC accounts will provide little income protection for larger farms. The most useful program would likely combine both tax deferral and government matching of deposits. This would broaden the appeal of the accounts and make them a more viable risk management tool for larger farms.

The accounts will provide little protection in successive low-income years. This is a critical concern because agriculture often undergoes multiple year price cycles. In this situation additional emergency government deposits to the accounts would likely be necessary to reduce income shortfalls. In fact, the juice grape industry experienced three consecutive years of declining prices in 2002-2004 and although data are not available for 2005 it is unlikely that prices increased significantly. Finally, the analysis assumed that farmers would have the available cash flow to invest in the accounts. Unless the farmers postpone investment or use additional debt, many would be unable to fully fund the accounts. These concerns aside, the accounts show promise in providing a component of a comprehensive farm income safety net.

#### Additional Reading:

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