Base Acreage and Planting Restrictions Under the 2002 Farm Act

The 2002 Farm Act provides income support to U.S. agriculture through various programs for 2002-07, including direct and countercyclical payments (Westcott, Young, and Price). Direct and countercyclical payments are determined using base acreage, program payment yields, and payment rates. Base acreage reflects historical use of the land for eligible crops, and program payment yields are historically determined commodity yields.[3] Payment rates are established in the legislation. Base acreage designations under the 2002 Act were made in 2002/03. In addition to granting eligibility to the seven crops (corn, grain sorghum, barley, oats, wheat, rice, and upland cotton) for which Production Flexibility Contract payments were made under the 1996 Farm Act, the 2002 Act also permitted farmland owners to include peanuts and oilseeds in base acreage. Although base acreage designations remain fixed for the 2002 Act, producers must enroll in the direct and countercyclical payment program annually to be eligible for those payments.[4]

Producers have considerable planting flexibility on base acreage, except for restrictions on:

- Wild rice.
- Fruit (including nuts).
- Vegetables, other than lentils, mung beans, and dry peas. Dry peas include Austrian, wrinkled seed, green, yellow, and umatilla. Peas grown for the fresh, canning, or frozen market are not dry peas.[5]

Planting for harvest of fruit and vegetables is prohibited on base acreage, except in the following situations:

- Harvesting double-cropped (producing two or more crops for harvest on the same acreage in the same crop year) fruit and vegetables on base acreage is permitted, without loss of payments, in any region that has a history of double-cropping covered crops with the otherwise prohibited crops.[6] An individual farm need not have a double-cropping history, only the region.
- Harvesting of any fruit and vegetables on base acreage is permitted, with an acre-for-acre loss of direct and countercyclical payments for each acre planted to the otherwise prohibited crop, if the Secretary of Agriculture determines that the *farm* had a history of planting those crops.
- Harvesting of any fruit and vegetables on base acreage is permitted, with an acre-for-acre loss of direct and countercyclical payments for each acre planted to the otherwise prohibited crop, if the Secretary of Agriculture determines that the individual *producer* had an established planting history of the specific crop.

[3]For additional background and analysis of recent changes in base acreage, see Young et al.

[4]Planting restrictions for fruit and vegetables were initiated in the Omnibus Budget Reconciliation Act of 1990. These planting restrictions were established in response to grower concerns about potential market impacts if base acreage became available for fruit and vegetable production. Wild rice was added to the list of fruit and vegetables in the 2000 Agricultural Appropriations Act (Young et al.)

[5]See U.S. Department of Agriculture (2002, p. 64759) for a complete list of prohibited crops.

[6]See U.S. Department of Agriculture (2002, p. 64758-64759) for a list of approved double-cropping regions.

A farm would have a history if it planted fruit and vegetables on base acreage in any year from 1991 to 2001, excluding 1996 and 1997.[7] A farm with a history can plant all base acreage to fruit and vegetables on base acreage. A producer would have a history if he/she planted fruit and vegetables on other farms during the same period. A producer with history can only plant the specific crop in which there is a history, and the producer is limited to the (average) number of historical acres for which the producer has a history. A farm or producer with a history is not considered to be in violation of the contract if fruit and vegetables are planted to base acreage, but direct and countercyclical payments would be reduced acre-for-acre for base acreage planted to fruit and vegetables.

A contract is considered to be in violation if fruit and vegetables are planted on base acreage when the farm or producer does not have a history of doing so, a producer exceeds historical plantings, or an acreage-reporting violation occurs. In these cases, additional reductions in payments are assessed. If the producer does not have a planting history, direct and countercyclical payments are reduced acre-by-acre for each acre of fruit and vegetables planted on base acreage *and* the producer is also assessed an additional payment reduction based on the market value of the fruit and vegetables. The total payment reduction cannot exceed the value of all direct and countercyclical payments otherwise received. Because producers annually enroll in the direct and countercyclical payment program under the 2002 Farm Act, payment reductions for contract violations are limited to the year of the contract.[8]

If the farm with base acreage is not enrolled in the direct and countercyclical program, wild rice, fruit, or vegetables may be planted on the base acreage in that year with no payment reductions, since no payments are made. The farm can be enrolled in subsequent years and become eligible for direct and countercyclical payments. Even when not enrolled for direct and countercyclical payments, farmers producing program commodities remain eligible for marketing loan benefits.

Illustration of Payment Reductions When Fruit and Vegetables Are Planted on Base Acreage

To understand how planting restrictions may affect government payments, consider the following example of a corn farm. Suppose this farm has 200 base acres of corn, a direct payment, and countercyclical payment yields of 102 bushels (bu) per acre.[9] Direct program payments are calculated by the product of the direct payment rate ($0.28/bu), the farm's direct payment yield (102 bu/acre), and 85 percent of the farm's base (200 acres). The direct payment equals $4,855 in this example.

Countercyclical payments are issued only if the effective price for a program commodity is below the target price, which is $2.63/bu. The effective price is equal to the direct payment rate plus the higher of the national average market price or the national loan rate. If the market price for corn is $2.25/bu, which is higher than the national loan rate of $1.95/bu, the countercyclical payment rate would be $0.10/bu ($2.63 – ($0.28 + $2.25)). Countercyclical payments are calculated by the product of the countercyclical payment rate

[7]Average annual plantings are either (but not both) of the periods 1991-95 or 1998-2001. For further details, see the Farm Service Agency Online Fact Sheet (USDA, February 2003).

[8]The payment reductions for harvesting fruit and vegetables on program acreage were higher under the 1996 Act, partly because the producer signed a multiyear contract under that law.

[9]Direct and countercyclical payment yield are identical for farms unless the producer elected to update base acreage and countercyclical payment yields under the provisions of the 2002 Farm Act (Young et al.).

($0.10/bu), the farm's countercyclical payment yield (102 bu/acre), and 85 percent of the farm's base (200 acres). The countercyclical payment equals $1,734 in this example.

If producers expect to earn a better rate of return by planting crops other than corn, they can do so and still collect corn direct and countercyclical payments provided that they do not plant wild rice, fruit, or vegetables. Direct and countercyclical payments, therefore, do not require planting of particular crops.

A farmer's decision to produce wild rice, fruit, and vegetables on program acreage depends on current market conditions, expected profit from production alternatives, and any loss of direct and countercyclical payments that might be incurred. To illustrate the tradeoffs to the producer, we expand our example of corn payments to show the reduction in payments for a scenario in which the farm has a planting history for fruit and vegetables and a scenario in which the farm does not have a planting history but elects to plant tomatoes (table 1).

First, assume that the corn farm in our example has a history of fruit and vegetable production (scenario 1) and the producer decides to harvest 60 acres of fresh-market tomatoes.[10] In this case, the farm would lose the direct and countercyclical payments ($1,977) associated with the 60 acres of base. This switch would be profitable to the farmer if the net profit from tomatoes exceeded the lost payments and the expected market profit from producing a permitted crop ($133 per acre).

[10]As discussed on pp. 10-18, barriers to planting tomatoes and other fruit and vegetables may be significant. We abstract from these for purposes of this illustration.

Payment reductions increase if the farm does not have a history of producing fruit and vegetables. Consider three scenarios (scenarios 2, 3, and 4) in which a farm plants 60, 1, and 200 acres of tomatoes. The farm foregoes the revenue from tomatoes as well as the direct and countercyclical payments for the base acreage that is planted to the alternative crop. The payment reduction is capped at the total value of the direct and countercyclical payments. Thus, in scenarios 2 and 4, the farm receives the maximum payment reduction of $6,589. In scenario 3, because only 1 acre of tomatoes is planted, the payment reduction is based on the value of tomato production and payments for the 1 base acre. Note that, in scenario 3, if the price of tomatoes increases, the payment reduction increases to offset the higher revenue until the maximum payment reduction is reached.

Scenarios 5 and 6 illustrate cases in which planting restrictions are not binding. When the base acreage constraints are not violated, no payment reduction is involved (table 1). The farm remains in compliance in scenario 5 because it does not produce any tomatoes. In scenario 6, additional nonbase acreage is acquired for tomato production and thus the farm has no payment reduction. The farm is not required to plant tomatoes on the newly acquired acreage. Tomatoes can be planted on the acreage that was designated originally as base as long as the farmer has a sufficient amount of nonbase acreage available. We observed this type of land use adjustment when we visited several fruit and vegetable producers in Michigan (see box, "Observations From a Trip to Michigan).

Table 1

Farm program payment reductions for violating wild rice, fruit, and vegetable planting restrictions

Item	Farm with history of planting wild rice, fruit, and vegetables	Farm in violation			Farm without history, no violation	Farm that expands to circumvent restrictions
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
1. Cropland, acres	200	200	200	200	200	260
2. Corn base, acres	200	200	200	200	200	200
3. Direct payment per acre, dollars[1]	24.28	24.28	24.28	24.28	24.28	24.28
4. Countercyclical payment per acre, dollars[2]	8.67	8.67	8.67	8.67	8.67	8.67
5. Total direct and countercyclical payment per acre, dollars (3 + 4)	32.95	32.95	32.95	32.95	32.95	32.95
6. Total direct and countercyclical payment, dollars (2 x 5)	6,589.20	6,589.20	6,589.20	6,589.20	6,589.20	6,589.20
7. Tomatoes, acres	60	60	1	200	0	60
8. Value of tomatoes per acre, dollars	5,000	5,000	5,000	5,000	0	5,000
9. Total value of tomatoes (7 x 8)	300,000	300,000	5,000	1,000,000	0	300,000
10. Direct and countercyclical payment acre-for-acre reduction, dollars (5 x 7)	(1,976.76)	(1,976.76)	(32.95)	(6,589.20)	0	0
11. Additional payment reduction[3]	0	(4,612.44)	(5,000.00)	0	0	0
12. Total payment reduction	(1,976.76)	(6,589.20)	(5,032.95)	(6,589.20)	0	0
13. Expected market net return per acre for corn or other permitted cropping alternative, dollars[4]	100	100	100	100	100	100
14. Loss of payments per acre, dollars(12/7)	(32.95)	(109.82)	(5,032.95)	(32.95)	0	0
15. Breakeven value or net profit per acre for tomatoes, dollars[5]	132.95	209.82	6,169.00 6	132.95	NA	100

NA = Not applicable. Numbers in parentheses = Negative numbers.

[1]Direct payment rate = ($0.28 per bu) x payment yield (102 bu/acre) x payment acre (0.85).

[2]Countercyclical payment rate = (($2.63 - ($0.28 + $2.25)) x payment yield (102 bu/acre) x payment acre (0.85).

[3]Additional payment reduction for farms with no planting history = the lesser of the market value of the wild rice, fruit, and vegetables or any remaining direct and countercyclical payment. As market returns increase, the total payment reduction (row 12) would increase until it reaches the total value of direct and countercyclical payments.

[4]Farmer could produce any crop other than wild rice, fruit, or vegetables.

[5]Market net return that would be required to justify planting tomatoes. Farmer would need a profit that would exceed lost market revenue from program crop plus any payment reduction.

Source: Compiled by Economic Research Service, USDA, from Farm Service Agency, USDA.

The value of direct payments varies by commodity and location (fig. 1). The legislated payment rates are commodity dependent. In addition, the program yields reflect historic production levels associated with the specific base acreage. The per acre value of direct payments range from over $100 per base acre in several counties in California, where rice and cotton are produced, to under $15 per base acre in many parts of the country.

For farmers with base acreage for multiple crops, when electing to plant fruit and vegetables on base acreage, farmers can designate the base to be forfeited for that year. The per acre value of the base varies on most farms, depending on the specific commodity historically produced on the base

Observations From a Trip to Michigan

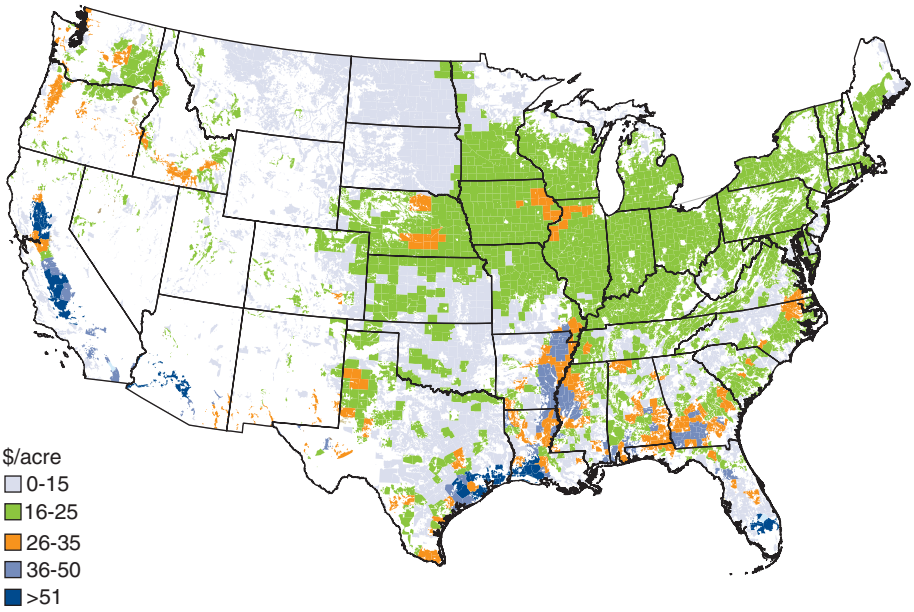
To gain perspective on these issues, we visited Michigan, where agricultural acreage is dominated by program crops but many fruit and vegetables are also grown. Over 3 days, we accompanied a team of researchers from Michigan State University to meetings with farmers, processors, and Extension staff in several counties. Although the number of participants was too small to qualify as a statistical sample (and no formal survey was taken), our discussions provided insight into the economic issues and attitudes of stakeholders. For many of the farmers—including vegetable producers, most of whom also owned base acreage—planting restrictions did not register as an issue of great importance. Some commodities (such as pickling cucumbers) are viewed as market constrained, with stagnant demand and little hope for acreage expansion. For producers with no previous experience in producing fruit and vegetables, the barriers to planting such crops as fresh tomatoes and most fruit are high enough that moving out of program crops is deemed extremely unlikely.

Planting restrictions are not always a binding constraint. Producers who want to grow vegetables can do so—without jeopardizing their direct or counter-cyclical payments—if they control or can gain control of sufficient nonbase acreage. A producer can plant fruit and vegetables on nonbase acreage that he or she owns or rents. If a producer does not have sufficient land, he or she can buy or lease additional nonbase cropland for fruit and vegetable production. This situation was illustrated by an enterprise we encountered in Michigan, with operations extending across several counties through multiple land rentals. By annually reconstituting the farm entity with the Farm Service Agency and renting sufficient nonbase acreage (in some cases, at considerable distance), this enterprise has been able to grow cucumbers and dry edible beans, without a reduction in payments, on acreage that was originally designated as base acreage. In addition, producers with a history of producing fruit and vegetables may do so by forgoing direct and countercyclical payments associated with the base acreage used for fruit and vegetables.

In Michigan, we met several dry edible bean producers who expressed concern about the possibility of new entrants under full planting flexibility. However, their concern was not merely that prices and returns would be pushed lower; it was also that new entrants would be collecting Federal subsidies on land planted to dry edible beans. Perceptions of fairness (or unfairness) were a dominant theme in these discussions of current restrictions and the possible shift to full flexibility.

Figure 1

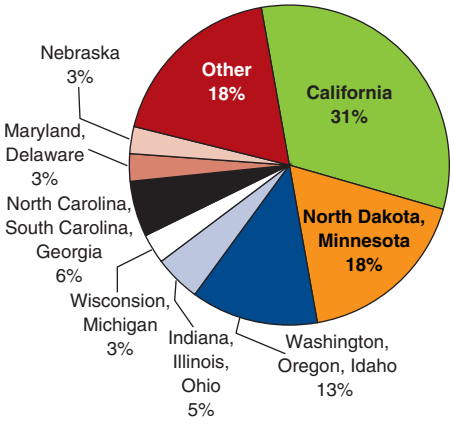
Per acre value of direct payments depends on commodities produced historically and local yields



Source: Compiled by the Economic Research Service, USDA, from Farm Service Agency, USDA, data.

Figure 2

Share of acreage by region on which farmers elected to lose program payments and to plant fruit and vegetables



Source: Compiled by the Economic Research Service, USDA, from Farm Service Agency, USDA, data.

acreage. Direct payments for oats average about $1 per acre, while payments for rice average close to $100 per acre. Thus, we would expect farmers to give up payments from lower valued base acreage first.

Payment Reduction Experience

The preceding discussion, which illustrates the payment reductions to a farmer if he or she violated the planting restrictions, raises the question: How frequently do program participants plant fruit and vegetables on base acreage? In 2003 and 2004, about 14,400-15,000 program farms planted fruit and vegetables on just over 600,000 base acres nationwide (table 2). About 99 percent of these farms had a history of planting fruit and vegetables on base acreage, so they lost direct and countercyclical payments ($22 per acre) associated with only the affected acreage. Almost one-third of the acreage with payment reductions was in California, and about one-fifth was in North Dakota and Minnesota combined (fig. 2).

The number of farms that experienced reduced payments rose under the 2002 Farm Act. The expansion of base acreage to include oilseeds reduced the availability of nonbase acreage for fruit and vegetable production. Also, under the 1996 Act, the penalty for planting fruit and vegetables was to forfeit all current and future payments under the 7-year contract farmers signed when they enrolled. Under the 2002 Act, farmers must enroll annually, which reduces the penalty.

Table 2
Payment reductions from planting wild rice, fruit, and vegetables

	Farms with a history of planting wild rice, fruit, and vegetables			Farms with wild rice, fruit, and vegetable planting violations[1]	
Year	Farms	Area	Payment reduction[2]	Farms	Payment reduction[2]
	Number	*Acres*	*Dollars*	*Number*	*Dollars*
1999	10,106	477,389	15,627,622	42	82,123
2000	9,278	469,333	13,346,750	30	31,411
2001	8,381	393,327	9,980,812	17	23,368
2002[3]	1,052	78,673	2,452,314	0	0
2003	14,926	616,942	13,456,814	56	37,220
2004	14,371	629,923	13,958,487	82	50,153

[1]A planting violation occurs when the farm operator plants wild rice, fruit, or vegtables on base acreage and the farm or producer does not have a planting history.

[2]Includes production flexibility contract and market loss assistance payments under the 1996 Farm Act and direct and countercyclical payments under the 2002 Farm Act.

[3]For 2002 contracts only, wild rice, fruit, and vegetables could be planted on excess base acreage and not be a violation of the contract or result in a reduction of direct and countercyclical payments.

Source: Farm Service Agency, USDA, unpublished payment reductions reports.