

The Economics of the Base and Yield Update Decision

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Abstract

The 2002 Farm Bill provided the one time opportunity to update base acres and counter-cyclical payment yields to more closely reflect their current crops, rotations and yield levels. This paper discusses the available options and provides case study examples to illustrate the complexity of this decision.

Introduction

The Farm Security and Rural Investment Act of 2002 (referred to as the 2002 Farm Bill) provided landowners the one time opportunity to update base acres and counter-cyclical payment yields to more closely reflect their current crops, rotations, and yield levels. The 2002 farm bill was signed into law on May 13, 2002. USDA-FSA immediately began developing the regulations to implement this policy. In fact, base and yield updating was their number one priority as 2002 direct and counter-cyclical payments would be calculated based on updated bases and yields. Sign-up for base and yield elections, as well as, program sign-up for the 2002 and 2003 crop years began October 1, 2002. The deadline for landowners and/or their operators to make base and yield elections is March 31, 2003. If the base and yield election is not made by the deadline, the farm's old bases and yields will be used as the default for the farm.

The base and yield update decision is considerably more complicated than many decisions landowners and producers have previously had to make. Even though there have been a large number of decision aids and tools developed to assist with the decision, the base and yield election process still takes considerable time to complete and sign-up has been slow. According to USDA-FSA statistics, as of January 2003, landowners and operators have made their base and yield elections on only 28 percent of eligible farms numbers or 596,498 out of

2,116,445. There are several possible explanations for the slow sign-up including:

- There is not a cut and dried right answer because counter-cyclical payments are determined by future market prices. A landowner or operator trying to maximize future government payments is hampered by the uncertainty of future prices. This decision, if thoroughly analyzed, is more than most can do with a pencil and paper.
- The complexity of the update decision grows exponentially the more program crops are grown on the farm. For example, a farm growing corn, grain sorghum, cotton, and soybeans has a much more complex decision than a farm growing cotton only. Requiring all program crops on a farm to use the same method of base updating and yield updating means there are a large number of permutations that must be considered.
- Changes in support programs in the 2002 Farm Bill required tenants to obtain a new power of attorney from all landlords. Getting updated powers of attorney is a significant task for tenants and sign-up cannot be completed (and in many cases scheduled) without them.
- In order to update yields, landowners and their tenants have to supply proof of actual yields over the 1998 to 2001 period for all covered commodities on a farm for each farm number they operate. For many, the data requirements have proven too onerous.
- Many landowners and their operators have chosen to take the default which is staying with their previous bases and yields. In this situation, they may have analyzed their decision and found the old bases and yields to generate the highest expected payments or one or more of the factors listed above have forced them to give up and live with their old bases and yields.

For those landowners and operators actively evaluating their options, there are a number of factors both economic and non-economic that need to be considered when making this decision – in addition to knowing all the rules. This paper discusses the available options and uses case study examples to illustrate the complexity of this decision as it applies to Southern agriculture.

Background

Base acres and yields used to calculate farm program benefits have been frozen since the 1980s. Since that time producers have called for Congress to provide them the ability to update bases and yields. Many have cited the fact that their current farm program benefits are based off a commodity they no longer grow and haven't for some time. Equally as important is the fact that improved genetics have drastically improved yields for most of the major program crops. Producers who have paid to adopt the new technology are not rewarded through many of the support mechanisms used to benefit producers (although they do benefit through marketing loan gains and loan deficiency payments as the benefits are on total production).

Updating Bases

The 2002 Farm Bill provided landowners or tenants (if they have a power of attorney for the landowner) the one time opportunity to update base acres to more closely reflect their current crops and/or rotations. Producers have five options for updating their base acres:

Option 1: retain 2002 Production Flexibility Contract (PFC) acreage (this paper refers to this as old base acres);

Option 2: retain 2002 PFC acreage and add oilseed acres without PFC offset otherwise add zero oilseeds;

Option 3: retain 2002 PFC acreage add maximum oilseed acres even if there will be a

PFC offset;

Option 4: change 2002 PFC acreage to new base by averaging the 1998 through 2001 acreage history; and

Option 5: retain PFC acreage and any combination of oilseed acreage.

This paper does not look at option 5 because it could result in a large number of possible outcomes. The only relevant choice for Option 5 is the one that maximizes returns. Any other level would be discarded, leading to other options generating the maximized outcome. Those outcomes are captured in Options 1-4.

Whether or not a producer would choose to update base acres depends upon the extent that they have been over or under planting their current base acres and the relative pay-off in terms of expected government benefits between currently planted commodities and commodities with old or historical base. Areas of the South have experienced drastic changes in cropping patterns since 1996 (Anderson, et al., 2001).

Updating Yields

If a landowner/tenant decided to update base acres, he/she would then be eligible to update payment yields that apply to the counter-cyclical payment. The direct payment yield will be their old payment yield, as in the past. A producer would have three choices on counter-cyclical payment yields:

Option 1: freeze 2002 payment yields for non-oilseed crops;

Option 2: establish oilseed payment yields and freeze payment yields for non-oilseed crops;

Option 3: establish a new payment yield using 70 percent of the increase in actual yield over the old 2002 payment yield; and

Option 4: establish payment yield using 93.5 percent of average 1998-2001 proven yield. Another consideration in this decision is the ability to “plug” 75 percent of the county average yield for any yield in the 1998-2001 period below 75 percent of the county average, including zeros.

The decision is also complex regarding updating yields. There appears to be a limited ability to generate “rules of thumb” that apply to all crops in terms of picking a yield updating method. However, on yield updating, there is clearly one rule of thumb that applies. If all the 1998-2001 average yields of the program crops on a farm are 28 percent higher than the old program yields, then the 93.5% update option would be the option to choose. This is fairly limiting unless there is only one commodity grown on the farm.

An additional factor in this decision is the requirement that base updating and counter-cyclical payment yield updating each require that whatever decision that is made for one crop on a farm goes for all the crops on a farm. For example, this means that a landowner and/or producer cannot update yields with option 2 on wheat and option 3 on soybeans. Likewise, the same yield updating decision is required for all commodities on the farm.

Adding the allowable options results in six possible Base and Yield options (A-F). These are:

- A. Base Option 1 and Yield Option 1 - retain 2002 bases and payment yields
- B. Base Option 2 and Yield Option 2 - retain 2002 bases, add oilseed bases with no offset, freeze non-oilseed yields and establish oilseed yields;
- C. Base Option 3 and Yield Option 2 - retain 2002 bases, add oilseeds with maximum offset, freeze non-oilseed yields and establish oilseed yields;
- D. Base Option 4 and Yield Option 2 - update all base acres, freeze non-oilseed payment

yields and establish oilseed payment yields;

E. Base Option 4 and Yield Option 3 - update all base acres, establish all payment yields using the 70 percent formula; and

F. Base Option 4 and Yield Option 4 - update all base acres, establish all payment yields using the 93.5 percent formula.

Data and Methods

This paper will use several case study examples using representative farms developed by the Agriculture and Food Policy Center (AFPC) for use in farm-level policy analysis. Each farm was developed by a consensus of 4 to 6 producers. The representative farm is typical of production practices (e.g., crops planted, rotations, cost of production and size) for their area of the respective state. AFPC currently maintains data for 29 representative crop farms in the South. Summary characteristics for each farm are contained in Appendix Tables 1-3. Each representative farm was analyzed using the Base and Yield Analyzer developed at Texas A&M University and endorsed by USDA-FSA (Richardson, et., al).

Results

The preferred options for updating bases and yields for each of the 29 representative farms are listed in Table 1. Only two farms selected Options A and B which means that either they were underplanting bases and/or old farm program yields were considerably better than those over the 1998-2001 period. No farms selected Option C and only three selected Option D. Twenty-two farms selected either Option E (7) or Option F (15). This indicates that their 1998-2001 yields were considerably higher than their old farm program yields.

The Texas Northern High Plains, 6700 acre feedgrain farm has undergone significant cropmix changes since base and yield was established (Table 2). Average planted acres over the 1998-2001 period increased over base acres for irrigated corn, irrigated soybeans, and dryland wheat. Irrigated wheat acres declined from base acres by 1005 as those acres were shifted to corn and soybeans. In addition, total irrigated acres increased following a trend towards more irrigated acres that has been prevalent in the High Plains region. Irrigated soybeans and dryland wheat had no base when PFC acres were assigned in the 1996 farm bill.

All of the base acre updating options allow the farm to increase base acres over the 2002 PFC acres. Options 4 allows an increase of 1005 acres of base by reducing irrigated wheat acres to add irrigated corn acres and soybean acres. In each option irrigated grain sorghum acres were kept at the old base level.

Average yields over the 1998-01 period exceeded farm program yields for each crop. Updating yields allows the farm to take advantage of technological gains in varieties and increased irrigation.

Given the increase in base acres and yields, particularly in irrigated corn, the farm updates base acres and yields using Option F, which is to update all base acres and establish all payment yields using the 93.5 percent formula. While that option generates lower payment yields for irrigated sorghum than the old farm program yield, the gain to irrigated corn and wheat more than offsets this amount. It is important to note that Option F does not maximize the possible farm program yield for wheat and sorghum. The complex decision to choose Option F highlights the value of additional corn base and yield. The additional corn base and increased payment yields more than offsets the loss of base for the other crops.

Texas Rolling Plains

The Texas Rolling Plains area has been under significant financial stress throughout the latter half of the 1990s and early 2000s. A number of years of serious drought rivaling those of the 1950s cut yields, often times to nothing. The adverse economics of cotton production has added to financial difficulties. Table 3 contains the base and yield update decision for the representative 2500 acre Texas Rolling Plains Cotton Farm (TXRP2500).

This farm increased acres over its old base acres during the 1998-2001 period. Significantly average yields over the period were nowhere near the farm's farm program yields that were frozen in the 1985 farm bill. Not only was drought part of the reason, but anecdotally there are some areas of the country where yields have not experienced the increases indicated by average yields or of other areas. Average yields for this farm were 120 pounds per acre, or 32 percent, below the farm program yield.

This farm is able to take advantage of higher planted acres to update its base acres. It does so using Option D, which is update all base acres, but keep its old farm program yields. In doing so, base acres are increased for cotton and wheat to 1,240 and 825, respectively.

West of Houston Rice Farm

The rice belt of Texas has undergone significant changes since the 1996 farm bill was implemented. The move to decoupled payments where AMTA payments were a relatively larger portion of total government support allowed many landowners the opportunity to no longer lease the land to the tenant, but to continue receiving the payment. These landlord-tenant issues, couple with a difficult economic situation, and urban expansion have sharply reduced the number of rice acres in the state to only 205,000 in 2002. That is compared to total rice base acres in the state of 596,000.

Semi-dwarf rice varieties were released, beginning in the early 1980s, that sharply

increased yields per acre. However, farm program yields were frozen in 1985 which precluded farmers from being able to receive government support on the additional production. The state average farm program yield is 49.3 cwt per acre while the state average yield in 2002 was estimated to be record 71 cwt. Given this confluence of events, few rice farmers in Texas have been able to take advantage of the base and yield updating provisions. To get the updated yields a farmer must update base, but most farmers have been underplanting base acres.

Table 4 contains the updating information for a representative 1,553 acre rice farm West of Houston. This farm has a base of 517.5 acres, but only planted an average of 450 acres over the 1998-2002 period. Rotational considerations generally constrain planted acres to about on third of total acres on a farm. While the farm program yield on this farm is 58.6 cwt the actual yields on the farm were 24.6 higher at 73 cwt.

This farm chooses Option A, which is to retain its 2002 PFC base acres and yields (old base and farm program yield). The increase in payment yield, that is paid only on CCP acres is not enough to offset the loss in base acres.

Summary and Conclusions

The updating decisions made by the representative farms detailed above indicate that there are few rules of thumb that can be blanket applied. The update base and yield if you have increased acres does not apply if a farm is in an area where yields have not increased over time. The Texas Rolling Plains farm highlights this. Updating, regardless, to capture higher yields also does not work when planted acres have declined, as illustrated by many Texas rice farms. In fact, the common situations of these representative farms highlight some shortcomings of the 2002 farm bill to many producers. The updating period of 1998-2001 includes the most serious drought in nearly 50 years, hindering producers ability to update yields. The requirement that a

farm must update base to update yields locks many Texas rice producers out of being able to gain support on increased per acre production due to variety technology change that occurred after farm program yields were frozen in 1985.

The base and yield updating decision currently facing producers is a complex one requiring a lot of analysis for many. Farms with more program crops or with changing crop mixes face a more complex decision. The thought of having to give up base or yield in one crop to get base or yield in another is a daunting task. For producers with only one crop, the decision may be only slightly easier.

Table 1. Base and Yield Update Option Chosen by Representative Farm.

Farm Type	Farm	Update Option to Choose	
Feedgrain & Oilseed	TXNP1600	F	
	TXNP6700	F	
	TXBG2000	F	
	TXBG2500	F	
	TNG900	F	
	TNG2400	F	
	SCG1500	E	
	SCG3500	E	
	Cotton	TXSP2239	D
		TXSP3448	E
TXRP2500		D	
TXBC1400		B	
TXCB1850		E	
LAC2640		E	
ARC5000		F	
TNC1900		B	
TNC4050		E	
ALC3000		D	
NCC1500		F	
Rice		TXR1553	A
		TXR3774	F
		TXBR1650	A
		TXER3200	E
	LASR1200	F	
	LANR2500	F	
	ARSR3640	F	
	MSR4735	F	
	ARWR1200	F	
	ARHR3000	F	

Table 2. Production Data for the Texas Northern High Plains 6700 acre Feedgrain Farm.

					Base Acre Options				Payment Yield Options			
					1	2	3	4	1	2	3	4
	98-01 Avg. Planted Acres	Base Acres	98-01 Avg. Yield	Farm Progam Yield								
Wheat, Irr	1005	2010	60	50	2010	2010	2010	1005	50	50	57	56.1
Sorghum, Irr	335	335	70	50	335	335	335	335	50	50	50	46.8
Corn, Irr	3350	2680	200	125	2680	2680	2680	3350	125	125	177.5	187
Wheat, Dry	670	0	14	0	0	0	0	670	0	39.1	21.5	13.1
Soybeans, Irr	670	0	50	0	0	670	670	670	0	39	46.7	46.8
Total	6030	5025			5025	5695	5695	6030				

Table 3. Production Data for the Texas Rolling Plains 2500 acre Cotton Farm.

					Base Acre Options				Payment Yield Options			
	98-01 Avg. Planted Acres	Base Acres	98-01 Avg. Yield	Farm Progam Yield	1	2	3	4	1	2	3	4
Cotton, Dry	1240	1143	250	370	1143	1143	1143	1240	370	370	286	233.8
Wheat, Dry	825	790	20	20	790	790	790	825	20	20	20	18.7
Total	2065	1933			1933	1933	1933	2065				

Table 4. Production Data for the Texas West of Houston 1553 acre Rice Farm.

					Base Acre Options				Payment Yield Options			
	98-01 Avg. Planted Acres	Base Acres	98-01 Avg. Yield	Farm Progam Yield	1	2	3	4	1	2	3	4
Rice	450	517.5	73	58.6	517.5	517.5	517.5	450	58.6	58.6	68.7	68.3

Appendix Table 1. Characteristics of Panel Farms Producing Feed Grains and Oilseeds.

TXNP1600	This is a 1,600-acre grain farm located on the northern High Plains of Texas (Moore County). This 100-percent irrigated farm is moderate-sized for the region and plants 800 acres of corn, 240 acres of sorghum, and 528 acres of wheat annually. Eighty-three percent of total receipts are generated from feedgrain sales.
TXNP6700	TXNP6700 is a large-sized, 80 percent irrigated, grain farm located in the northern Texas Panhandle (Moore County). This farm annually plants 3,350 acres of irrigated corn, 335 acres of irrigated sorghum, 670 acres of irrigated soybeans, 1,005 acres of irrigated wheat, and 670 acres of dryland wheat (the corners of all pivot-irrigated fields). Eighty-two percent of 2002 cash receipts were derived from feedgrain sales.
TXBG2000	This 2,000-acre grain farm is located on the Blackland Prairie of Texas (Hill County). On this farm, 600 acres of corn, 750 acres of sorghum, 400 acres of cotton, and 250 acres of wheat are planted annually. Feedgrain sales accounted for 60 percent of 2002 receipts with cotton accounting for one-third of sales. Twenty beef cows live on 150 acres of improved pasture and contribute approximately two percent of total receipts.
TXBG2500	TXBG2500 is located on the Blackland Prairie of Texas (Falls County) and plants 750 acres of corn, 250 acres each of sorghum and wheat, and 625 acres of oats each year. Feedgrain receipts comprised 60 percent of the farm's total receipts during 2002. Twenty head of beef cows contributed two percent of gross receipts.
TNG900	This is a 900-acre, moderate-sized grain farm in West Tennessee (Henry County). Annually, this farm plants 450 acres of corn, 450 acres of soybeans, and 200 acres of wheat (planted before soybeans) in a region of Tennessee recognized for the high level of implementation of conservation practices by farmers. Eighty-seven percent of 2002 farm receipts were from sales of corn and soybeans.
TNG2400	West Tennessee (Henry County) is home to this 2,400-acre, large-sized grain farm. Farmers in this part of Tennessee are known for their early and continued adoption of conservation practices, including widespread implementation of no-till farming. TNG2400 plants 1,080 acres of corn, 500 acres of wheat, and 1,320 acres of soybeans (500 of which are double-cropped after wheat). The farm generated about 89 percent of its 2002 gross receipts from feedgrains and oilseeds.
SCG1500	SCG1500 is a moderate-sized, 1500-acre grain farm in South Carolina (Clarendon County) consisting of 846 acres of corn, 654 acres of soybeans (454 acres double-cropped after wheat), and 454 acres of wheat. Close to 81 percent of the farm's receipts were realized from corn and soybean sales during 2002. This farm enjoys significant returns on double-cropped acreage, but timing does not allow for more than 454 acres.
SCG3500	A 3,500-acre, large-sized South Carolina (Clarendon County) grain farm with 1,400 acres of corn, 900 acres of wheat, 1,260 acres of soybeans (900 double-cropped after wheat), and 840 acres of cotton. The farm generated 47 percent of 2002 receipts from corn and soybean sales, with an additional 36 percent coming from cotton sales. Timing precludes further expansion of relatively lucrative double-cropped acres.

Appendix Table 2. Characteristics of Panel Farms Producing Cotton.

TXSP2239	A 2,239-acre Texas South Plains (Dawson County) cotton farm that is moderate-sized for the area. TXSP2239 plants 1,616 acres of cotton (1,250 dryland, 366 irrigated), 270 acres of peanuts, and has 183 acres in CRP. For 2002, 66 percent of receipts came from cotton.
TXSP3448	The Texas South Plains (Dawson County) is home to this 3,448-acre, large-sized cotton farm that grows 2,625 acres of cotton (2,120 dryland, 505 irrigated), 245 acres of peanuts, and has 288 acres in CRP. Cotton sales comprised 42 percent of 2002 receipts.
TXRP2500	TXRP2500 is a 2,500-acre cotton farm located in the Rolling Plains of Texas (Jones County). This farm plants 1,240 acres of cotton and 825 acres of winter wheat each year. Eighty percent of 2002 farm receipts came from cotton sales. Twelve head of beef cows generated approximately two percent of farm receipts.
TXBC1400	This 1,400-acre farm is located on the Blackland Prairie of Texas (Williamson County). TXBC1400 plants 150 acres of cotton, 900 acres of corn, 250 acres of sorghum, and 100 acres of winter wheat annually. Additionally, this farm has a 50-head beef cow herd that is pastured on rented ground that cannot be farmed. Cotton generated 23 percent of 2002 total receipts, corn generated 52 percent, and sorghum generated 23 percent.
TXCB1850	A 1,850-acre cotton farm located on the Texas Coastal Bend (San Patricio County) that farms 925 acres of cotton, 775 acres of sorghum, and 150 acres of corn annually. Seventy-four percent of 2002 cash receipts were generated by cotton.
LAC2640	This is a 2,640 cotton farm located in north Louisiana (Morehouse Parish). LAC2640 plants 1,498 acres of cotton, 686 acres of corn, and 456 acres of soybeans each year. During 2002, 50 percent of farm receipts were generated from cotton sales.
ARC5000	ARC5000 is a 5,000-acre cotton farm in northeast Arkansas (Desha County) that plants 1,800 acres of cotton, 1,500 acres of rice, 1,400 acres of soybeans, and 300 acres of corn. For 2002, 56 percent of gross receipts came from cotton sales, 32 percent from rice sales, and 11 percent from soybean sales.
TNC1900	A 1,900-acre, moderate-sized West Tennessee (Fayette County) cotton farm. TNC1900 consists of 915 acres of cotton, 370 acres each of soybeans and corn, 150 acres of sorghum, 65 acres of wheat, and 30 acres enrolled in CRP. This farm increased in size from 1,675 acres to 1,900 acres in the past three years. Cotton accounted for 75 percent of 2002 gross receipts, with corn and soybeans contributing 11 percent and 8 percent, respectively.
TNC4050	TNC4050 is a 4,050-acre, large-sized West Tennessee (Haywood County) cotton farm. This farm plants 2,670 acres of cotton, 820 acres of soybeans, 560 acres of corn, and 328 acres of wheat each year. This farm increased in size by 250 acres in the past three years. During 2002, cotton sales generated 82 percent of gross receipts.

Appendix Table 2. Continued.

ALC3000	A 3,000-acre cotton farm located in north central Alabama (Lawrence County) that plants 2,075 acres to cotton, 750 acres to corn, and 175 acres to soybeans annually. ALC3000 has been under a no-till regime for several years. Additionally, cotton produced on this farm is marketed through a cooperative gin. This gin has implemented ginning and marketing innovations that return a higher lint price than would be realized through conventional marketing channels. Cotton sales accounted for 80 percent of total farm receipts during 2002.
NCC1500	This is a 1,500-acre cotton farm located on the upper coastal plain of North Carolina (Wayne County). NCC1500 plants 1,000 acres of cotton, 500 acres of wheat, and 500 acres of double-cropped soybeans annually. This farm was added during 2001 to reflect the return of large-scale cotton production to North Carolina. Cotton accounted for 69 percent of this farm's 2002 receipts with 19 percent coming from soybean sales.

Appendix Table 3. Characteristics of Panel Farms Producing Rice.

TXR1553	This 1,553-acre west-of-Houston, Texas (Colorado County) rice farm is moderate-sized for the region. TXR1553 harvests 450 acres of first-crop rice and 405 acres of ratoon rice. The farm generated 97 percent of its receipts from rice during 2002.
TXR3774	TXR3774 is a 3,774-acre, large-sized rice farm located west of Houston, Texas (Colorado County). This farm harvests 1,589 acres of first-crop rice and 1,351 acres of ratoon rice annually. TXR3774 realized 98 percent of 2002 gross receipts from rice sales.
TXBR1650	The Texas Gulf Coast (Matagorda County) is home to this 1,650-acre rice farm. TXBR1650 harvests 550 acres of rice annually and realized 100 percent of 2002 farm receipts from sales of rice.
TXER3200	This 3,200-acre rice farm is large for the Texas Gulf Coast (Wharton County). TXER3200 plants 1,440 acres of rice and 160 acres of grain sorghum each year. Ninety-eight percent of 2002 receipts came from rice sales.
LASR1200	A 1,200-acre southwest Louisiana (Acadia, Jeff Davis, and Vermilion parishes) rice farm, LASR1200 is moderate-sized for the area. This farm harvests 660 acres of long grain rice and 324 acres of soybeans. During 2002, 84 percent of gross receipts were generated from rice sales.
LANR2500	This is a 2,500-acre, large-sized northeast Louisiana (Madison Parish) rice farm. This farm harvests 1,000 acres of long grain rice, 750 acres of soybeans, 325 acres of cotton, 200 acres of corn, and 100 acres of sorghum. For 2002, 60 percent of farm receipts came from rice, 13 percent from soybeans, and 17 percent from cotton.
ARRS3640	ARR3640 is a 3,640-acre, large-sized Arkansas (Arkansas County) rice farm that harvests 122 acres of medium grain rice, 1620 acres of long grain rice, 1,498 acres of soybeans, and 615 acres of wheat each year. Seventy percent of this farm's 2002 receipts came from rice sales.
ARWR1200	East central Arkansas (Cross County) is home to this 1,200-acre rice farm. Moderate-sized for the region, ARWR1200 annually plants 600 acres to rice, 600 acres to soybeans, and 60 acres of double-cropped wheat. During 2002, rice sales generated three-fourths of gross receipts.
ARHR3000	ARHR3000 is a 3,000-acre large-sized northeast Arkansas (Lawrence County) rice farm that annually harvests 1,500 acres of rice, 1,350 acres of soybeans, and 150 acres of corn. Rice sales account for 77 percent of 2002 farm receipts.
MSR4735	This is a 4,735-acre Mississippi Delta (Tunica County, MS) rice farm that plants 1,335 acres of rice, 2,700 acres of soybeans, and 500 acres of cotton annually. During 2002, MSR4735 realized 54 percent of total receipts from rice, 28 percent from soybeans, and 18 percent from cotton.

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