Default yields available for ACRE program

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The Farm Service Agency (FSA) recently announced that a set of default values for crop yields is available for farmers who want to enroll in the new Average Crop Revenue Election (ACRE) program. A lack of production information has been cited by many producers as a reason not to enroll in ACRE. This provision addresses that problem.

Based on county averages

The default yields made available by FSA are based on the county yield averages estimated each year by the National Agricultural Statistics Service (NASS). However, instead of reflecting yields per harvested acre, like the published NASS data, the ACRE default yields will be calculated as yields per planted acre. The total number of bushels harvested in each county is divided by the total number of acres that were planted or were intended to be planted, including prevented planting acres. The planted acres total does not include land that was harvested for silage or other non-grain uses, however.

The default yield for each crop, county and year is equal to 95 percent of the yield per planted acre.

Any producer who elects the ACRE program must provide production information for each year from 2004 through 2008, for each program crop covered. Farm level yields will be calculated by dividing total bushels produced by total planted acres, just as for the county yields. However, for any given year the FSA default yield will be used if the actual production is less than the default yields, or if the crop was not planted that year. If production information is not

continued on page 2

inside . . .

Tracking biodiesel profitability . ..........................................................Page 3
Side-stepping SE tax on a trade? ..........................................................Page 4
Default yields available for ACRE program, continued from page 1

available for a certain year, the county default yield will be assigned to that year and all years before that (back to 2004), even if production information is available for the prior years. This could benefit producers who do not have production information for some years.

The default yields for each county in Iowa can be found on the Iowa State University Extension Ag Decision Maker Web site, at www.extension.iastate.edu/agdm/. Click on the Farm Bill Information button, then the ACRE calculator icon.

**Implications**

The most obvious impact of this ruling is that farmers with yields below the county average in some years can simply elect to use the default yields instead. The farm “trigger” revenue for 2009 will be based on the average of the middle three out of these five yields, multiplied by the average marketing year price for the 2007 and 2008 crops. This means that their “actual” farm revenue in future years will be more likely to fall below the trigger level than if they had used their actual farm yields. It should be remembered, though, that falling below the farm level trigger is only one of the conditions required to be receive an ACRE payment. The state level revenue must also be below the state trigger, and the size of the payments is based on the state level revenue shortfalls.

Once the state level payment per acre is determined, it is adjusted by multiplying by the farm level historic yield as a percent of the state level historic yield. Thus, using the default yields when they are higher than the farm yields can increase farm level payments as well as make it easier to trip the trigger.

**Production documentation**

Producers who enroll in ACRE will be asked to certify total bushels harvested for each year from 2004 through 2008 on the FSA unit being enrolled. At a later time, FSA may ask for production evidence to substantiate the certified values. Acceptable documentation includes crop insurance records used to establish the actual production history (APH) yield on that FSA unit, as well as commercial receipts and settlement sheets, load summaries or other evidence of commercial sales. Records used to obtain USDA marketing loans or loan deficiency payments can be used, as well. Crops fed to livestock or disposed of through other channels are more problematic, but can be handled in much that same way that they were in the 2003 farm bill enrollment. It is important that production that was commingled from several FSA units be disaggregated to each farm unit.

**Risk protection**

ACRE is a useful risk management tool in years with low prices or yield problems that affect most of the state. Although there is no guarantee that either of these will happen in the next four years, the potential payoff is large. Figure 1 illustrates the possible size of payments for the 2009 crop for a farm enrolled in ACRE with average yields of 175 bushels per acre for corn and 50 bushels per acre for soybeans, in a 50-50 rotation. Results are

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![Figure 1. Potential USDA Payments under ACRE and CCP (average yields)](image-url)
shown for different price levels, assuming both the farm and the state have average yields in 2009. Prices are national marketing year cash prices. The payments also include direct payments from USDA. When prices are at $4 for corn and $10 for soybeans or higher, only direct payments are received. Under ACRE, direct payments are reduced by 20 percent compared to the current CCP option.

Under lower price scenarios, ACRE payments make up for lost revenue. Current projections show that with average yields, marketing year prices would have to average under $3.67 for corn and $8.92 for soybeans to trigger ACRE payments. Under the current counter-cyclical program, however, payments do not begin until prices are below $2.35 for corn and $5.36 for soybeans.

Producers have until August 14 to enroll in the DCP program for 2009. If they do not elect ACRE this year, they still have the option to elect it in a future year, through 2012.

Tracking biodiesel profitability

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The profitability of biodiesel production is extremely variable. Due to the volatile price nature of biodiesel and soybean oil, its major feedstock, biodiesel profitability can change rapidly from month to month. In addition, price variations of its co-product (glycerine) and its energy source (natural gas) add to the variability of biodiesel profits.

To track the profitability of biodiesel production, an economic model of a typical northern Iowa biodiesel plant was created. This is a 30 million gallon facility with construction costs similar to plants built in 2007. The costs and efficiencies are believed to be typical of northern Iowa biodiesel plants. The prices of biodiesel, glycerine, soybean oil and natural gas are updated monthly to compute the current profitability of biodiesel production.

Monthly price variables

1) **Biodiesel Price** – Weekly price F.O.B. (Free on Board) for the plant (converted into monthly average prices) as reported in the National Weekly Ag Energy Round-up by the USDA Ag Marketing Service.

2) **Soybean Oil Price** – Daily price converted into monthly average prices as reported by the USDA Ag Market Research Service, Iowa Soybean Processors Report

3) **Methanol Price** – Monthly average regional posted contract price history reported by Methanex.

4) **Natural Gas Price** – Monthly Iowa natural gas price for industrial users as reported by the Energy Information Administration (official energy statistics of the U.S. government).

Although these prices are representative of northern Iowa biodiesel plants, they may not be representative of plants in other regions or states. In the economic model the user can increase or decrease any of the price series by a fixed amount to represent a special situation. An adjustment in a price series will be reflected in the analysis tables and graphs.

To show how this facility would have performed in the past, the monthly profitability time-series is started in January, 2005. Although this facility would not have been in production at this time (built in 2007), it provides a perspective on how this facility would have performed historically.

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*continued on page 4*
Revenue, costs and net returns (profitability) are shown monthly as per gallon of biodiesel and per 100 pounds of soybean oil. Also, biodiesel and soy oil price breakeven levels are computed.

Major assumptions and characteristics of the biodiesel plant model

1) Turnkey biodiesel production facility
2) Facility built in 2007
3) Nameplate capacity of 30 million gallons
4) Facility construction cost (including working capital) of $1.57 per gallon of nameplate capacity
5) Lender finances 50 percent of the project
6) Equity financing of 50 percent of the project.
7) Plant operates at 100 percent of nameplate capacity
8) Conversion factor of 7.65 pounds of soybean oil per gallon of biodiesel
9) A gallon of biodiesel produces .9 pounds of glycerine.
10) Natural gas requirement of 6 cubic feet per gallon of biodiesel
11) Typical input costs for an Iowa soybean oil biodiesel facility

The monthly profitability of this hypothetical plant is computed by using the monthly market prices for biodiesel, soybean oil, methanol and natural gas. Each month the analysis is updated with the previous month’s prices. If any of these price data series do not fit your situation, you can enter an adjustment factor that will increase or decrease the coefficients in the price data series. All other variables are held constant throughout the analysis.

Input coefficient adjustment. Although we believe the coefficients in this model are a good representation of a soybean oil biodiesel plant, the user has the ability to change any of the input coefficients in the economic model to fit a special situation. A change in an input coefficient will be reflected in the analysis tables and graphs.

The input prices for the profitability model are updated monthly and are available on the AgDM Outlook and Profitability page or at: http://www.extension.iastate.edu/agdm/energy/xls/d1-15biodieselprofitability.xls.

1 Northern Iowa is defined as Iowa north of Interstate 80.

Side-stepping SE tax on a trade?

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Ordinarily, transactions such as those involving trading in a used item of equipment for a new model are treated as “exchanges” but qualify as “like-kind” exchanges with little or no gain recognized. That is the case if the transaction involves a reciprocal transfer as distinguished from a transfer with money payment.

Relatively little thought is generally given to casting a transaction to avoid the often tax-free treatment of a reciprocal transfer. However, a practice has developed in some areas of deliberately avoiding like-kind exchange treatment and characterizing a transaction as a sale of the used item traded in and a purchase of the replacement item. Such a strategy, if successful, reduces the taxpayer’s 15.3 percent self-employment tax. The advantages, if successful, are magnified by the current higher levels of expense-method depreciation. The question is whether such a move is legitimate.
An example of the strategy
Assume a taxpayer wishes to buy a new tractor. The new tractor has a purchase price of $100,000 and qualifies for a full deduction under either the 2008 limit of $250,000 or the 2009 inflation-adjusted limit of $250,000. The taxpayer also has an old tractor, which could be traded in, with an income tax basis of $10,000 but a fair market value of $70,000. The taxpayer agrees to pay $30,000 in cash in the event of a trade.

If the taxpayer sets up the deal as a trade-in, eligible for like-kind exchange treatment, and does not make the election to treat the relinquished MACRS property as disposed of by the taxpayer at the time of the disposition, which allows the undepreciated basis to be added to the cash boot paid, only the cash boot paid is eligible for expense method depreciation. Thus, the expense method depreciation claimed would be limited to $30,000. There would be no recapture of depreciation from the old tractor in the event of a trade.

But what if the transaction is set up as a sale of the used tractor and the purchase of the new tractor as separate deals? The sale of the used tractor at fair market value ($70,000) would trigger recapture of depreciation (ordinary income) which would be calculated on Form 4797 and would not be subject to the 15.3 percent self-employment tax. Remember, if expense method depreciation property is disposed of, the recapture rules applicable to Section 1245 property are invoked. The recapture rules are triggered any time the property is not used predominantly in a trade or business at any time.

The new tractor would be eligible to be expensed with the depreciation amount from Form 4562 reported on Schedule F as an expense which would reduce farm income and the 15.3 percent self-employment tax.

Drawing the line between a sale of the used item and a trade-in
The first point to note is that the regulations clearly state that the exceptions to the general rule (that the gain or loss is recognized) are to be strictly construed. The second point to observe is that the cases reflect a fine line between exchanges (as distinguished from a sale) and a purchase and sale of property. In a moment of frustration at this point, the Tax Court in a 1995 case, quoted from Barker v. Comm’r, “... if the exchange requirement is to have any significance at all, the perhaps formalistic difference between the two types of transactions must, at least on occasion, engender different results.” In that case, the Tax Court found that the purchase of one liquor store and the subsequent sale of another were two separate taxable events rather than a like-kind exchange. That point had been illustrated in a 1982 Tax Court case where the sale of a Colorado improved lot and the purchase of an improved parcel in California were not a like-kind exchange and were deemed to be separate and unrelated transactions.

In a 1999 United States District Court case, C. Bean Lumber Transport, Inc. v. United States, the purchase of new trucks was not sufficiently related to the sale of the used trucks to be a like-kind exchange with no recognition of gain. The Tax Court indicated that it was significant that the dealer paid cash for the equity in the used trucks. The court held that the transactions were independent transactions with gain or loss triggered on the used trucks.

The courts have also been willing to collapse transactions involving multiple steps back into economic reality with gain or loss recognized. That point was made in Portland Mfg. Co. v. Commissioner, involving an exchange of stock for stock, and in Kuper v. Commissioner where the parties had created a transaction with several steps to disguise a taxable exchange of stock.

So what does this all mean?
It is convincing that a sale of a used tractor to the same dealer at 9 a.m. and the purchase of a new tractor in an allegedly separate transaction at 1 p.m. on the same day with the same dealership with a significant income tax benefit riding on the characterization of the transaction, is suspect.
is not clear whether the statement in the regulations that the exceptions (and like-kind exchanges are among the exceptions) are to be strictly construed would prevail in such a situation. A sale to a different dealership on a different date from the purchase of a similar piece of equipment is more likely to be treated as a separate sale and purchase. However, such separate transactions are unlikely to yield as good a deal as setting up the transaction with the same dealership.