AGRICULTURAL MUGUICE PUBLISHED BY MU EXTENSION, UNIVERSITY OF MISSOURI-COLUMBIA

extension.missouri.edu

Evaluating the Contract Swine Finishing Opportunity

Christian R. Boessen, Crops and Swine Economist Department of Agricultural Economics, Commercial Agriculture Program

Increasing numbers of farmers, aspiring farmers and rural landowners are considering a contract hog finishing enterprise as a way to enter agriculture or to expand or diversify their current operation. This publication is in response to questions and issues raised by prospective producers and is intended to help with the decision process. Every person, opportunity and situation is different in one way or another, and the following discussion is more about helping you to ask the right questions than giving specific answers. Even if you have a substantial farming operation, the decision to enter contract production is one of the biggest decisions you will ever make. It involves a set of decisions related to farm business strategy, investment analysis and personal/family issues. Like any business venture, your satisfaction in the long run is more assured if you go in with both eyes open. The best possible situation for contracting firms and growers is that expectations conform to reality over the life of the contract and beyond.

What is contract finishing?

Contract finishing is an enterprise in which two or more parties share the risks, rewards and responsibilities of producing market hogs. For this discussion we refer to the two parties as the "grower" and the "contractor." The grower typically makes the investment in buildings and a site, maintains the facilities and provides labor and management associated with caring for the animals, manure hauling and certain recordkeeping functions. The contractor typically provides all the inventory items such as animals, feed ingredients as well as technical support, veterinary services and transportation of pigs to and from grower buildings. The contractor usually specifies a record-keeping system and may provide it as a part of the overall arrangement.

Contract production allows the contractor and grower as a team to spread risk while achieving a higher level of profit per hog because of scale and specialization. By working together a contractor and grower can create a "bigger pie" than either might be able (capital and labor) or willing (risk) to create on their own. It is a shared-risk enterprise in which both the grower and the contractor bring resources to the table, each is shouldering some of the risk, and each is sharing in the overall returns.

Nationwide, about 40 percent of all hogs produced are finished under production contracts. In 2003 the University of Missouri surveyed contract growers nationwide and found that a large majority of growers and contractors were fairly well satisfied with the arrangement and 80 percent of growers planned to continue with their current contractors.

Why choose contract production?

Contract finishing tends to fit well into the resource base of many farmers or landowners and often offers an income opportunity with quantifiable risks. Most farming enterprises entail significant production, price and financial risks. With contract swine production, price risk is greatly reduced or eliminated, and depending on the arrangement, production risk is primarily assumed by the contractor. Increasingly, in the Midwest, contracts pay a flat dollar amount annually for each pig space in the building, whether or not the

contractor uses the space. However, contracts offering payment on a per-pig basis or per pound delivered out of the building have been common in the past and are still prevalent in certain areas.

Printed on recycled paper

As a contract producer, you will need substantially less capital than you would need for noncontract swine production. The primary difference is that you will typically need a line of credit or operating capital only in the first few months or "start-up phase" of contract production, and once your positive cash flow starts, operating debt is typically unnecessary. Consequently, a balance sheet that is not able to support the full amount of borrowing necessary to engage in independent production may very well support contract production. Because it is likely that your lender will consider contract finishing less risky, the debt capital may be easier to obtain.

Given the ever-increasing cost of fertilizer inputs, the value of manure nutrient sources generated by a finishing facility has increased interest in contract production. The value of the nutrients is affected by the cropping scenario, the amount and concentration of manure (determined by the type of facility you build) and application costs and the cost of alternatives. Finishing facilities can also provide a source of irrigation water, again depending on the facility built.

You may be one of many small to medium-sized farrow-to-finish operators who are at a crossroads with their operations and are considering contract finishing as a way to reduce risk but continue to use labor and facilities. Many farmers are at a stage where they know investment in farrow-to-finish facilities commits them to dealing with the work of farrowing for a longer period than they desire, considering their stage in life. With modern production technology such as automatic sorting, contract finishing is a way to use resources while creating work that producers can envision doing for a longer period of time.

If you are a young or aspiring farmer, contract finishing also can provide a means to enter swine production and establish your first farm business. Many of the young farmers who got their start contracting in the 1990s have their first buildings paid for and are expanding their farms with the debt-free cash flow.

Often farmers struggle with fluctuating labor demands on the farm. You can find yourself with extra time or underused hired help, and contract finishing may provide an opportunity to use labor and generate income for that labor when few other alternatives exist in the local community. The additional cash flow from the contract operation can also help smooth the fluctuations in income from crop production.

The market for growers

It has been said that contract growers and prospective growers should think about a "market for growers." As in any market situation, contract production is governed by supply and demand. In any given area, there is a demand for growers and a supply of growers. The demand depends on several factors such as the presence of contractor operations, including sow farms and slaughter facilities. Factors that will enhance the demand for growers include access to relatively cheap corn and soybean meal, the presence of feed milling infrastructure, good roads, and not too many homes. The demand for growers will also tend to be stronger in areas that have established numbers of contract growers. Unless a contractor is up against some other constraint, the contractor will prefer to establish a relationship with growers in an area where proximity to other growers would tend to *lower* the average cost of doing business with all the growers.

The supply of growers in any given area will be largely fixed in the near term and determined by factors such as the number of landowners and farmers in the area, demographics including age and wealth of farmers and landowners, availability of capital, environmental regulations and opportunities for other employment in the area. The supply of contract growers seems to be greater in areas where there is a history of contract production.

For the individual considering a contract finishing enterprise, it will be easier to get started and the returns may be higher and more stable if you are operating in an area of strong demand for contract growers. In general, it will be easier to establish a successful contractual relationship and, if necessary, sell your operation in an area of strong demand for contract production. In an area where there are multiple contractors working with growers, lenders are more comfortable with the long-term prospects for the business, will know more about the business and will be more willing to lend money for contract start-ups. Operating costs can be lower in areas where there is substantial contract production. For example, in areas of significant production there are more likely to be custom manure applicators and custom building cleaning crews that can eliminate equipment costs and reduce labor requirements. Conversely, as you move away from the areas of strong demand, you may have a harder time getting started, receive less for your pig spaces, incur higher costs and face faster depreciation of asset values.

Is contract finishing right for your situation?

For producers who have existing facilities and are moving to contract finishing, the primary questions are most likely related to specific contract terms and contract negotiations. If you are starting from scratch, you probably recognize the potential advantages but know that a great deal of analysis is needed to make an informed decision about a contract enterprise.

The size of the investment alone makes it clear that this is a big decision Unless you've been involved in confinement livestock production, the investment may seem shockingly large. Expect to spend \$180-\$200 per pig space to build facilities in addition to development of the building site (roads, grading, electric, water supply, etc.). Most contractors seeking new growers expect the grower to build at least 2,000 to 2,400 spaces. Like many investments in farming, this one is a single-purpose asset. Again, like many other investments on the farm, it is illiquid — which means it will be expensive to change your mind about this. The contract is a long-term commitment. The whole endeavor couldn't be more unlike the "old days" of getting in the hog business stringing woven wire on the hillside, sticking a couple thousand dollars in some A-frame huts etc. Before you can decide if it is the right move for you, there are four key issues that you can sort through relatively quickly before you get bogged down in details of contract and analysis: know yourself, know your farm, know your financial condition, and know the contractor.

Know yourself

The first hurdle you have to get over is making sure you are personally comfortable with a contract relationship. Contract production is much more like business-to-business relationships outside agriculture than traditional farming. As a grower, you are typically agreeing to do specified tasks in a specified manner at specified times. For some, this is too much like being an employee (but your contract will make it abundantly clear that you are not an employee). A certain level of trust is critical in the contract relationship, as the contractor will be in control of many factors that affect the returns to, and value of, your investment. It is important for you to understand how much managerial control you will have in a contract arrangement. Most management decisions will be made by the contractor.

The contractor will expect you to follow specific instructions within the contractor's system for producing pigs. You may or may not agree with inputs being used or practices prescribed, especially if you have your own ideas or if you have raised pigs before. Many growers consider this a positive aspect of contract finishing as they have plenty of other things to worry about, and not making a lot of decisions on the contract enterprise is one less headache. Visit with other growers who work with the prospective contractor, to learn not only how they feel about the contractor but what they are expected to do and not do under their arrangement. You simply do not want to get into a situation where you disagree or second-guess your contractor, as it will only cause problems down the road.

Other issues that warrant consideration are generational transfer and retirement. In some ways a contract finishing operation can work well with the next generation coming on the farm, and many farmers retiring from farrow-to-finish operations do contract finishing. But in any case, as with any business investment, you should consider your "exit strategy," which involves answering the question: "How can I get my investment back out of this facility?" A confinement hog building is not an easy asset to sell, particularly if manure-spreading acres are an issue. If you think you may want to sell out of the investment in the future, it is best to plan for that from the start. For example, consider building the facility on land you would be willing to sell. Make sure the sale of the parcel would not disrupt the rest of the farming business.

At this point, you might say: "I wouldn't mind XYZ if the financial returns are adequate." If that is the case, you should return to this question after you have done the cash flow analysis described below.

Know your farm

Some farming operations are a great match for contract finishing, and others are not. Before you get too far into the analysis of a contract finishing opportunity or evaluating alternatives, be sure that a confinement enterprise fits into your situation. The primary considerations relate to the site, the neighborhood and environmental issues, and labor availability.

Contractors generally require that sites can be accessible by tractor-trailer rigs for feed delivery and market hog shipping. Making sure the enterprise fits the neighborhood is an issue that all parties should be concerned about. How close are the nearest neighbors? What are the prospects for residential development in your area? The type of facility under consideration and the manure management practices associated with it affect the neighborhood issues. Among your environmental concerns are how you will store and apply manure and how odors may affect nearby landowners. Some farms are situated on karst topography, where groundwater is easily harmed and where farming practices that do not use nutrients well may be difficult to manage. Farms with row crop operations typically have few problems with manure management and are generally in a good position to capture the value of manure. Farms with little open land or land use that does not involve crop removal will find manure management more of a challenge. Your regional extension specialist and personnel at the USDA Natural Resources Conservation Service can help you understand the suitability of your farm for a contract finishing enterprise.

If you have options, it is best to locate the facility in an accessible location that is also as close as possible to where you plan to use the manure. Sometimes growers are inclined to build on marginal land that they are not cropping. If this decision significantly increases the cost of hauling manure, it can negate the economic benefit of the nutrients.

For Missouri residents, an excellent resource for this issue is a Web site specifically developed for site analysis for animal feeding operations. The Web site was developed by the Missouri Department of Agriculture and the University of Missouri Commercial Agriculture Program. This tool allows you to collect for a specific parcel of land agronomic and environmental information that is relevant to the siting decision and nutrient management planning. It can be accessed on the Web at *cares.missouri.edu/afosite/*.

Know your financial condition

Before you get too far into the details of a contract opportunity, consider your capability to borrow several hundred thousand dollars. You may or may not know the overall implications for your balance sheet and what additional leverage might mean for you and your farm. This question is more of a "back-of-theenvelope" analysis. Different lenders have different criteria for lending to contract operations, and it is best to speak with a lender with a track record of financing contract finishing.

Lenders with experience in this sector of the market will know the capital necessary and the debt servicing ability of the assets. You will need an upto-date balance sheet (form available from AgEbb at http://agebb.missouri.edu/download/) and recent income tax returns. Visiting with a lender with experience in financing contract finishing operations has a number of benefits. Experienced lenders can help early in your decision-making process to avoid problems their other customers may have encountered. At worst, a lender might see early on that the enterprise is not feasible for your situation, which may save you considerable time and expense. Various lending programs in the Missouri Department of Agriculture and the Farm Service Agency may be helpful to you (funding levels can vary from year to year), and an experienced lender can help you quickly understand if any of these programs can fit your situation.

Know the contractor

Ideally, if you are considering contract finishing, there is more than one contractor actively seeking growers in your region. But in any case, a crucial aspect of any business decision is knowing the party with whom you are about to do business. This is especially true when there is a long-term agreement involved. You must make an assessment of the contracting entity and perhaps the parent company that is offering a contract to you. It may be a large agribusiness firm or a family member or another independent family farm within the state. The following discussion sets out a few questions you should at least ask yourself, and preferably the prospective contractor.

First of all, it is important to know something about the contractor's financial position. If there is no way to get a feeling for the financial strength of the contractor, it will be difficult for you and your lender to assess the risks of the arrangement. You are concerned that the contractor will be there five years from now, continuing to place pigs in your building so that you can pay off your lender and achieve other financial goals. Considering that the contractor typically assumes all the price risk, could the contractor survive a storm like the industry saw in the late 1990s?

Another set of factors that you must consider relates to the long-term strategy of the contractor. The most basic question is the contractor's commitment to a contracting strategy. Is it apparent that the contractor is specializing in other facets of hog production and has a significant dependence on contract growers for the firm's success? You would not want to be in a situation where another farmer or entity is contracting the finishing stage to cope with a short-term situation. A regional commitment is also important. As a general rule, you do not want to be "outside" of the region where the contractor is already established, unless you know there is a significant commitment to a new region. The existence of groups of growers makes possible more economical and profitable relationships for the contractor. Growers isolated from each other are more expensive to support and to service with baby pigs, feed and hauling of market hogs.

The best source of information about any contractor is other growers. Ask several other growers about their relationship with the contractor. Historically, has the contractor upheld commitments to growers? Do other growers feel their relationship with the contractor has evolved favorably? Have there ever been operational "changes" that involved an aggressive contract interpretation or a situation not anticipated under the original agreement? Information on past performance is typically the most valuable and sometimes the easiest information you can obtain when evaluating a contractor.

Learn what you can about the contractor's swine production system. Visit with extension specialists or other knowledgeable individuals familiar with the contractor's operation. Is the contractor using good genetics for the region? Where does the feed come from? Does the contractor have a health program to ensure that you will receive healthy pigs? Does the building design for ventilation, winds and snow loads make sense for your region? Make sure the building that the contractor requires is an "industry standard" size. Few contractors want a building that takes another half load of pigs to fill. Learn how the contractor's system compares with those of large competitors. If the contractor you are considering is doing something out of the ordinary, it may be a great opportunity but it could also be something that limits your options and your prospects for success in the long term.

If you are new to swine production, you will be especially interested in understanding what if any services or programs the contractor offers for grower support. Contractors who invest in their growers through educational programs demonstrate a long-term view of their business relationship.

Finally, think about your relationship with the

contractor in an adverse situation. What if a dispute arises and your only option is to enter litigation. Can you visualize suing the contractor? What if the contractor is another individual in the community? The overwhelming majority of contract defaults in the hog price crash of the late 1990s occurred where a farmer contracted with another farmer. In many cases the default resulted from severe financial stress causing the default and a grower suing in this situation may have little hope of recovering financial damages and only creates ill will in the community.

Evaluating a production agreement

Cash flow: Understanding the cash flows, both income and expenses, associated with any contract finishing opportunity is the number one priority in the decision making process. Projecting cash flows will help avoid financial problems that could arise from periods of negative cash flow. Also, it is useful to do your own cash flow budgeting and not to rely solely on the individual cash flow sample budgets provided by the contractor. Too often, contractor-supplied projections represent ideal conditions or average conditions. For example, a quarterly cash flow projection might show positive cash flow every quarter but in reality, there could be one or two months in which there is not sufficient cash available to pay bills. It is also important to take the cash flow projection another step and ask, "What if?" This exercise is called sensitivity analysis and is done by reducing the level of animal performance or changing other variables to see how cash flow holds up under less-than-optimal conditions.

Inflows of cash may be based on a fixed dollar amount per pig space per year or as a payment for pigs delivered from the facility. Cash outflow in a normal operating year will be associated with expenses such as maintenance, utilities, taxes, manure management and hired labor. The difference between the inflows and outflows associated with operating the contract finishing enterprise is called net cash flow and represents the return to the grower's capital investment and labor. Getting a good idea of the average annual net cash flow will help you compare the contract enterprise with other investments.

If the estimated net cash flow from operating the contract enterprise seems acceptable, it is imperative that you understand the cash outflows associated with the startup period. The startup period includes the first expenses associated with the facility, such as engineering or consulting and dirt work associated with site preparation. There will be several months of severely negative cash flow during construction. It is also important to know when the first cash inflows will occur relative to the completion of the facilities.

Ask the contractor about any unusual cash flows that are likely to occur over the life of the contract. This could include lagoon pump downs, lagoon cover A companion to this publication is an Excel spreadsheet to help you analyze the cash flows generated by a potential contract arrangement. If you received this document on CD, the file Contract Finishing Cash Flow.xls is also on the CD. If you found this publication on the Web, the spreadsheet can be downloaded at <u>http://agebb.missouri.edu/download/</u>.

replacement or equipment replacement (feeders, waterers, gates, fans). Also, be aware that few contracts provide for inflation or cost spikes. Think about what expenses could fluctuate significantly, such as utility expenses due to extreme cold or rising LP gas prices. Also, some expenses will simply increase with inflation. Evaluate the implications of cash outflow items increasing 2 or 3 percent per year over the life of the contract. It is also imperative that the long-term cash flow adequately covers repairs and ordinary equipment replacement. You do not want to arrive at the end of a contract with worn out equipment and a facility that has not been maintained. In that situation you will be negotiating from a weak position and are unlikely to attract the interest of other contractors.

Another major cash flow issue is related to debt service requirements. You need to know how much of your net cash flow will be required each year to cover principal and interest. Most lenders require that building financing be repaid in 7 to 10 years. Attempting to repay the loan in a shorter period may leave little cash flow for family living expenses.

The consequences of not being able to pay principal and interest on time mean that it is imperative to evaluate possible scenarios where cash inflow could fall short or be delayed. When the contract payment is based on pig spaces provided, this is basically evaluating the contractor financial strength. When the contract is based on number of pigs shipped, payment could fluctuate for various reasons. Pigs can die or the contractor may not place pigs to capacity in a timely fashion. If the contractor can cause cash inflow to fluctuate, the grower should expect some minimum guaranteed cash flow that is related to the principal and interest payments.

It is also noteworthy that in the first seven years of operations, taxes on the income generated by the facility are usually low as the asset generates significant tax deductions through depreciation. Often growers overlook the income tax trap that can emerge when the depreciation deduction runs out, which is another reason to examine near-term and distant cash flows closely and review them with your tax adviser.

Understanding the contract

Once you are have evaluated the feasibility of a contract enterprise on your farm and are comfortable with the prospect of a relationship with the contractor, you should then invest the time and money needed to evaluate and understand the contract. This means having a legal, written contract that you fully understand. Have an attorney review the contract and advise you on every provision before you sign it. You will also want a financial or tax adviser to examine the contract.

The first big issue is understanding what type of facilities the contract requires and exactly how they get built. Ask if the contractor helps in arranging bids and can assist in buying materials to obtain the best possible pricing. Know if the contractor has a list of building firms that can bid on your facilities. Talk with other growers about their experience with the construction process.

Evaluate the building design and ask an engineer familiar with swine finishing buildings to look over the plans. Are the buildings of a standard design acceptable to multiple contractors? You want a facility that will appeal to other contractors to ensure continuing demand for your enterprise. You should also consider future expansion. If your initial finishing enterprise is sized below permitting requirements, the building design need not be certified by a licensed engineer. If by erecting a second building in the future you must obtain a permit for your operation, you may face a regulatory requirement that the structures have engineering certification. At a minimum, make sure any manure storage structures, such as pits, lagoons or slurry storage are certified by an engineer. Getting certification on an existing building can be expensive at best or impossible if the building is poorly designed.

Contract maturity is an important consideration. Is the contract duration at least as long as your real estate loan on the facility? To minimize any difficulties in obtaining financing, it usually best to know exactly what the payments will be over the life of the loan. (Conversely, make sure you are working with a lender who can make a loan that does not mature before the building is paid off. You do not want to have to "requalify" for the loan in five years. Sometimes contracts are of shorter maturity or renew whenever a new group of hogs is moved into the facility. Shorter contracts will typically pay higher returns as the risk to the contractor is lower. If you are in a position to assume more risk, for example, by moving existing, paid off buildings into a contract relationship, higher returns might be possible.

Be sure to understand how and when payment will be calculated and remitted. If the payment is based on pig spaces, know when it will be paid. Will you receive payment only when the pigs are completely finished and loaded out of the building, or will you receive payment at some intermediate point before the pigs are finished? This will be especially important in timing of cash flows, specifically to time receipts when loan payments are due.

Are there any guarantees in the contract? You tend to see more of this type of language in contracts that base payments on some variable factor such as pigs placed or pigs shipped or pounds of gain. Contracts that base payment on the number of animals placed in the building will often guarantee 70–80 percent of capacity per turn. These types of minimums are often designed around the principal and interest payments on the buildings. If the contractor has the option of not filling the building, know the guaranteed minimum you will receive. It will typically be difficult to obtain a high level of debt financing without a corresponding minimum-payment clause. Regardless of financing, as a grower you are accepting significantly more risk relative to a guaranteed per pig space contract and should expect higher annual returns.

Understand if there are any incentive clauses in the contract. Many contracts that pay on a per animal basis also have incentives to encourage you to do the best possible job. These incentives are often based on achieving minimum death losses, or levels of average daily gain or feed efficiency. Another frequent incentive item is based on minimizing sort loss to ensure that you ship out a uniform truckload of market animals. Realize that efficiency-related incentives are largely determined by the quality of feed and the genetics of the pigs. Visit with other growers to determine if incentives will result in a meaningful expected increase in returns above a base payment.

Know if the contract is for feeder pig-to-finish or wean-to-finish pigs. If a contractor brings you feeder pigs (40-50 pounds) to stock your wean-to-finish barn that would typically mean less work for you and more "turns" per year. If you have a feeder-to-finishing barn and the contractor has the option of bringing you weaner pigs (just weaned) then the nature of the contract could change dramatically, particularly in terms of labor and utilities. Contracts also often contain a clause that requires the grower to invest in equipment or technology in the future to keep the building up to a certain standard required by the contractor. While typically related to feeders and waterers, such a provision may also be used in combination with a strategic shift from feeder pig to weaner pig finishing. Similarly, if you are not interested in raising breeding animals, typically larger and harder on facilities, be sure your contract precludes that use of the facility. If the contract does not specify the size of pigs coming in or going out, be sure you have thought through what might emerge, and make sure you are comfortable with those possibilities.

The contract will invariably specify that the grower is responsible for managing manure and complying with environmental regulations. Be sure you understand what this entails. Know what equipment you will need to buy to deal with manure or be aware of custom rates for pumping, hauling and application. Do you have enough land? Can you spread manure on a neighbor's land, and will you always be able to do so? The same situation applies to mortalities (dead pigs). Know the regulations governing disposal of dead pigs, acceptable disposal methods and what each costs for the size of operation under consideration.

Default provisions are often the most surprising or troubling to prospective growers. What are your obligations under default and what constitutes default? What is likely to happen or could happen to the building? A default is typically related to poor performance or actions that endanger the animals. When these situations arise, the contractor reserves the right to occupy and manage the building, typically suspending some or all payments to the grower. These clauses are unsettling, but when you consider that the contractor owns the animals, it is not unreasonable for the contractor to create a mechanism to protect them. Often, lenders will require similar clauses in financing terms that allow them to take over the building in a delinquency situation. Conversely you should understand what happens if the contractor defaults. Do you have any special rights within the contract to choose another party to continue to use the building? Be sure your attorney explains the implications of any clauses related to dispute resolution.

Understand if there will be any assignment of contract proceeds? This is often done when there is significant financing. Proceeds refers to the contract payments, which under assignment, go directly to the lender with any left over proceeds after payment of principal and interest returned to you.

If the contract payment is based on animals shipped or if substantial incentives are based on animal performance or death loss, you need to know if you can reject poor animals at delivery and if you can substitute highquality replacements. If you reject an animal, will your building be allowed to run empty or partially empty, and that animal will not be replaced. Also, know who is responsible for providing each input and for taking care of environmental concerns, such as dead animal disposal, which normally falls to the grower.

What are the alternatives: When a grower chooses to enter into a contract arrangement, he or she is making a commitment of both capital and labor. Once committed, the hours needed to care for the animals and maintain buildings cannot be "sold" to another enterprise or employer. Likewise the money invested, whether debt or equity will be extremely difficult to get back out of the enterprise to invest somewhere on or off the farm. Consequently, you as a prospective grower should consider your alternatives, as it is one more way to ensure that you are satisfied with your investment and your relationship with a contractor in the future. Investment alternatives include other contract opportunities, other farm-related investments and off-farm investments.

The best investment analysis involves evaluating returns over the life of an asset, taking into account the

Table 1. Calculate returns from contract production

Table 1. Calculate returns from contract production		
1	Total annual contract payments	\$
2	Subtract operating expenses (utilities, repairs, property taxes but not interest or depreciation)	_
3	Subtract fixed costs (property taxes, insurance, but not interest on capital or depreciation)	_
4	= Returns to labor, capital and management	
5	Subtract your wages (hours labor required \times desired wage)	_
6	 Net income before interest, depreciation and taxes 	
7	Subtract the loss in value of the facility over the year in question (the actual depreciation, not tax depreciation)	_
8	= Net income before interest and taxes	
9	Subtract interest paid on debt capital	-
10	= Net income before taxes	
11	Facility value at beginning of analysis period	
12	Add facility value at end of period	+
13	= Average investment calculation numerator	
14	Divide line 13 by 2 to get your average investment	
15	Divide line 8 by line 14 and multiply by 100 to get the rate of return on investment	%

time value of money. The cash flow model mentioned above can help you do that. You may or may not have access to a computer to do such analysis, so the following discussion represents a rough but worthwhile analysis of returns to an enterprise proposal. Table 1 details an approach to estimate the rate of return on investment.

To make comparisons for alternative uses of labor and capital, you first need to break apart the returns that are expected under the contract. This should be thought of as returns in an "average year." You may want to add up the first five years of expected income and expenses and divide by five, which will estimate the first year of potentially low returns during startup but will not be overly pessimistic. With the finishing contract, the grower typically receives a lump sum payment after hogs are shipped or at regular intervals if payment is based on a per-pig-space arrangement (typically semiannually). This payment must cover costs and the remainder is a return to labor and management and capital investment. Breaking the returns apart is the only way to focus on what you are receiving as a "wage" for your labor and what you are receiving as return on the investment you made in the facility. A tongue-in-cheek parallel would be a situation where you were comparing CD rates at banks and one bank had a higher rate of return on CDs but required that you sweep the floors at night to get the interest. In that case, the return on your CD investment would not really be all interest, as some of it would be a wage for sweeping the floor.

As a first step, you must subtract from the gross payment everyday operating costs such as utilities, repairs, hired labor and manure handling. Overhead or fixed costs must come off the gross return as well; these include items like insurance and property taxes (but not interest and depreciation). Next, subtract a charge for what you think is a fair wage for yourself. The result is your Net Income Before Interest, Depreciation and Taxes (NIBIDT). This is a good number to know as it is a measure of how much cash the asset generates after paying you for your labor. In future years as the financing structure changes, you can look back at this number to compare in contract renegotiation. In the first few years, it may seem as if "there is no money left over after the payments." Because you and your lender both may prefer that the building be paid off in 7 to 10 years, the principal and interest payments are painful "forced savings." Your estimate of NIBIDT is your "light at the end of the tunnel" in terms of the cash flow your investment can generate.

The next step is to account for the loss in value of the facility you built. It is easy to ignore depreciation (this refers to actual loss in value, not tax-related depreciation) but you must remember that you are investing in a depreciable asset, the value of which is affected by many forces, including the contract, actions of the contractor, changes in technology and time (expected deterioration). Essentially you "prepay" for an input when you build the building and slowly use it up. For example, it will cost \$180 to \$200 per pig space to construct a building and it would not be unreasonable to expect the value of the building to decline 5 percent per year. Thus, you have a real cost in "lost wealth" of \$8 to \$10 per pig space per year. The resulting number is Net Income Before Interest and Taxes, which represents the return to all the capital involved, debt and equity. This is a key number that allows you to see the returns to the entire asset, ignoring how it is financed. If you borrowed no money to build the facility, this would be your return on assets as well as your return on your equity investment.

To calculate the *Rate of Return on Investment,* first calculate your "average investment" by adding the beginning value of your facility to the ending value and divide by 2 (Lines 11 through 14 in Table 1). If you used a five-year average of income and expenses, add the value of your facility at start-up to the value at the end of five years, then divide by two to get your average investment over the period. Divide Line 8 by Line 14 and multiply by 100 to get a rough estimate of the "yield," or *Rate of Return on Investment* (RROI).

After subtracting the amount of interest you would pay (on average as it will decline), you get a *Net Income Before Taxes* (NIBT). This number represents

your return on your equity in the facility, again before paying income and FICA/Self-Employment Taxes. In this calculation, a positive NIBT indicates that you are paying yourself for your labor, accounting for lost asset value and building wealth over time. If you do not calculate NIBT, you could easily overestimate the return to equity and whether or not your business is helping you build wealth (by not considering the value of your time and the rate at which your asset is losing value). NIBT must exceed the amount of taxes due and the principal payment on the facility loan, or you will have to plan to make loan payments out of your "wage" or other sources of income.

A final and important note about calculating returns to a contract enterprise. Breaking the cash flows down is a start, but making proper comparisons is still tricky for a number of reasons. One of the biggest issues when comparing alternatives is that many contract growers attach a nonmonetary value to being able to create work on the farm, to not having to spend time commuting, doing a type of work they prefer or allowing a family member to stay on the farm. These nonmonetary returns are real but can make comparisons difficult. A second issue is comparing returns on investments that are of different risks. The risk associated with a given contract finishing arrangement will be hard to quantify, as there are many forces involved. But make a conscious effort to consider return and risk before accepting or rejecting a major investment think about how you will sleep with one investment versus the other. Returns on contract finishing may be lower than returns on other possible investments on the farm but without much of the risk that many traditional enterprises carry.

Summary

This discussion has covered many of the most important considerations you should have when considering a contract finishing enterprise. Every situation is different and you should thoroughly evaluate the opportunity, both the good and the bad. An investment in a contract finishing enterprise can be a profitable long-term venture and a win-win arrangement for everyone involved.

If you are offered a contract opportunity and would like professional help, contact your local extension office. Your extension professional in farm management, animal sciences and agricultural engineering will be glad to assist you as you work through your decision. Also, be sure not to hesitate to hire an attorney to review the contract, it is imperative that you fully understand all aspects of the contract.

UNIVERSITY OF MISSOURI Sector 2010 Sector