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FACT SHEET

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AN ECONOMIC ANALYSIS OF CONTRACT EGG PRODUCTION

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Growing interest in the financial benefits of owner-operated contract egg production led to a 1980 study of such operations. Can one person make a living in contract egg production? How much does it cost to start and run an operation large enough to support that person? The study, conducted by the Texas Agricultural Extension Service, was designed to answer these questions.

Conditions

An analysis was made of a 30,000 bird unit, the size needed to fully employ the time of one person with no additional labor. The operation was evaluated by comparing the discounted cash flow and the initial investments over a prescribed number of years.

The cost of the unit, excluding the land, was estimated at $151,000, based on the following:
Production — 20 dozen eggs per bird per year, gathered by hand.

Housing — two 15,000 cage-layer bird houses arranged in a three row, stair-step manner, equipped with automatic feeders and watering devices.

Climate control — side wall curtains, evaporative cooling pads and fans.

Waste disposal — flush system with a two-stage lagoon.

Operating Income and Expenses

Most contract egg producers receive three types of income: contract payments for marketable eggs, production bonuses and feed conversion bonuses. In this case, the three were added together so the total income would reflect dollars per hen and net proceeds per dozen.

Annual operating expenses for electricity, water, chemicals, maintenance, insurance, taxes, etc., were estimated at $7,000. The contract producer's salary was set at $12,000 yearly. Annual increases in the costs and salary were not projected. Instead, it was assumed the increases would offset each other.

Depreciation and Tax

Straight-line depreciation was used for all capital equipment, and the additional 20 percent first-year depreciation was declined. The depreciable life and the expected life of the assets were considered the same, with the houses figured over 20 years, equipment over 15 years and curtains over 5 years. While there are other methods of computation, this was most practical for the study. For income tax, the producer's burden was an estimated 15 percent of taxable income.

Financing

At the time of the study, two alternative financial arrangements were available to producers. The Farmers Home Administration (FmHA) loans eligible producers up to 95 percent of the required capital at an interest rate of 10 percent for up to 20 years. The applicant must: (a) operate a family farm; (b) have no other lending alternatives; and (c) have clear title to at least one acre per 1,000 birds.

Conventional 80 percent loans were available at 13 percent interest over a 10 to 12 year period. Again, the producer must have clear title to one acre of land for every 1,000 birds.

Analysis Methodology

Using the net present-value method, the net present-value of the after-tax cash flow* is discounted at a rate equal to the interest on the initial investment. If the discounted cash flow exceeds the initial investment, the project is considered financially feasible.

The 30,000 bird operation would be feasible if the net present-value of after-tax cash flow for a 10 year period, discounted at 10 percent, exceeded the initial investment.

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Results

To meet the conditions of an FmHA loan and the stipulations of the study, a contract egg producer would have to make $1.30 per bird per year or 6.5¢ net per dozen. This is based on an initial investment of less than $5,000 or 3 percent of $151,000. With the land value (30 acres at $1,000 per acre) added to the initial investment, the income needed is $1.40 per bird or 7.0¢ net per dozen.

Even at this level of income, the taxes during the first seven years are not enough to offset all the investment credit generated by the initial expenditures. Since current laws do not allow more than a seven year carryover, this credit is irretrievable.

About $12,000 of the approximately $15,000 in credit would be lost. With a conventional loan, an initial investment slightly over $30,000 is required. Accordingly, a producer would have to make $1.60 per bird per year or 8.0¢ net proceeds per dozen to achieve the financial goals of this study. When the cost of the land is added in, those figures rise to $1.70 per bird or 8.5¢ per dozen. Under a conventional loan, there is no loss of investment tax credit.

Conclusions

It is doubtful that the payment schedules determined by the study justify investment in a new contract egg operation. Under current economic conditions it may be prudent for packers to offer contracts which are somehow tied to interest rates. If contract rates are increased to offset the present interest burden and interest rates decline, it would be very difficult to reduce rates unless the contract specifies an incremental portion is for interest.

Because current contract prices do not generate enough taxable income to use all the available investment credit, leasing of facilities may be feasible. Then the leasing agent could use investment credit and pass it back to the producer in lower lease payments.

Summary

Production Unit

- Two 15,000 bird houses
- Cages in three row, stair-step arrangement
- Flush system with lagoon
- Hand gathering with automatic feed and watering system
- Side wall curtains, evaporative pads and fans
- Total cost = $151,000

*After-tax cash flow is derived by adding depreciation to after-tax income and then deducting the equity portion of the loans.

Expenses

Owner labor	$12,000	Property tax	$ 450
Electricity	2,700	Maintenance	1,800
Water	250	Chemicals	300
Insurance	1,500		

Financial Considerations

- Straight-line depreciation
- 20-year life and depreciation for houses
- 15-year life and depreciation for equipment
- 5-year life and depreciation for curtains

Financial Arrangements

	Fm HA	Conventional
Downpayment	3%	20%
Interest Rate	10%	13%
Length	20 years	10 to 12 years
Conditions	One acre of land per 1,000 birds, owned free and clear. Family sized farm. No other lending alternatives available.	One acre of land per 1,000 birds, owned free and clear.

Income

Net proceeds per dozen eggs, including contract payments for marketable eggs, production bonuses and feed conversion bonuses.

Feasibility Analysis

Net present-value (NPV) of the cash flow for the first ten years discounted at 10 percent, was compared to the initial investment. If the NPV exceeded the initial investment, the venture at the imputed income was considered feasible.

Results

With an FmHA loan, a 6.5¢ net proceeds contract is needed if the venture is to be economically feasible. If the cost of the land is added, 7.0¢ is required.

An 8.0¢ contract meets the criteria with a conventional loan — if the land value is excluded as required initial investment. With the land, an 8.5¢ contract is needed.

Implications

- Contract prices may need to be tied to interest rates.
- Contracts should be marketed to investors who seek tax shelters since the taxes under lower priced contracts are not enough to use the available investment credits.
- Leasing arrangements may be advantageous because of the tight credit market and the contractor's inability to use all the investment credit.

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