

Appendix 10



THE UNIVERSITY OF GEORGIA
**COOPERATIVE
EXTENSION**

College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences

Is Your Agribusiness Project Feasible?

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Considerable change is occurring in Georgia's agriculture. Some farmers face difficult financial times as a result of such factors as limited market opportunities for traditional commodities, volatility in commodity prices, price increases for most input items, changes in farm policy and programs, and unfavorable weather conditions. In addition, considerable acreage has been removed from production or shifted from one enterprise to another, resulting in decreased demand for farm inputs. Impacts related to declining levels of both on-farm and off-farm business activity are being felt by farmers, input supply firms, marketing firms and other firms supplying services to the agricultural sector.

Rural communities have been affected, severely in some cases, by changes in agriculture-related business activity. Some rural communities are experiencing economic growth rates comparable to urban and suburban areas. Other rural communities are experiencing a decline in growth rates. A decline in business activity because of a decline in demand for consumer goods and services and agricultural inputs supplied by local businesses results in a general decline in the local tax base. Local governments depend on their tax base to fund public services such as schools, hospitals, waste disposal, fire and police protection, and roads.

In short, multifaceted changes are occurring that are affecting Georgia's agriculture and rural communities. To cope with these changes, Georgia's farmers and agribusiness firms that depend on agriculture must constantly search for alternative types of enterprises and/or alternative methods of producing and marketing goods and services. While conducting this search it is critical to recognize that before any new enterprise or method of producing and marketing a product is

initiated, it should be determined whether the proposed venture is financially viable; that is, will it be profitable? A feasibility study is designed to determine whether a specific proposal has a profit potential and is financially sound.

This publication reviews the types of situations requiring feasibility analyses and discusses what is involved in conducting a feasibility analysis. It is also designed to serve as a guide for conducting adequate and meaningful feasibility studies.

Types of Situations Requiring a Feasibility Analysis

It is important to conduct a feasibility analysis any time a firm considers significant change in its present operating situation because one purpose of conducting the analysis is to avoid costs associated with making a wrong decision. If the analysis identifies a "good" business opportunity, a completed feasibility study is an ideal document for planning purposes and can be used for securing necessary financing.

The following situations may require a feasibility analysis before a final operational decision is made:

- When a farmer or group of farmers is considering producing or marketing a new commodity.
- When a group of farmers is considering a new venture, such as the formation of a cooperative to purchase farm inputs or to collectively market the production of the group's members.
- When a farmer or agribusiness firm is considering diversifying operations. Many farmers and agribusiness firms have diversified into alternative enterprises in an attempt to reduce reliance

on one product or one group of products, to lower overhead costs, and to more fully utilize existing production resources, facilities or distribution channels.

- When a firm is considering a geographical expansion of its market area. Many agribusiness firms have expanded their market area to gain a larger market share and achieve a greater ability to negotiate price with buyers and/or sellers.
- When a firm is considering the international market. Many agribusiness firms are interested in the export market as a means of expanding output. There are many differences between export markets and domestic markets, and many incur additional costs.
- When a firm is considering a new service or product line. For example, many of Georgia's input supply firms have added services and products because their customers suggested a need. Many of these products or services have been added without the benefit of a feasibility analysis to determine if the addition would be profitable.
- When a farm or agribusiness firm is considering adoption of new technology, a new production system, or new tillage or conservation practices. Adoption of new technology is often required for agricultural operations because of changing sanitation requirements, pollution standards and environmental concerns.
- When a firm is considering a new location. This may be the result of changing conditions at the firm's present location, including wage rates, adverse public opinion regarding pollution control or a decline (or increase) in production of the raw product because of altered competitive conditions compared to other areas.
- When a firm is considering expansion or modernization of present facilities. This desire may stem from expanded demands for goods or services, from an attempt to gain economies of size in the production process or from a desire to update obsolete facilities to better compete with other firms.
- When the firm is considering a combination or alliance of firms to improve the operating position and further the common interest of these firms. This situation includes mergers, acquisitions or consolidations. The need for this type of reorganization may result from a decline in volume handled by the agribusiness firms, a change in the market structure that requires larger volume or the need

to ensure a supply of inputs or a market for the firm. Duplication of effort can often be eliminated and costs reduced if two or more firms are consolidated.

This list indicates that the term "feasibility" is broad and covers many situations that develop for farmers and individual agribusiness firms. Consequently, the content of and the methodology followed in conducting any given feasibility study varies considerably. This publication reviews the content of a complete feasibility study and outlines an analysis for a new enterprise. However, this study and analysis can also be related to analyzing partial projects, such as an agribusiness firm building a new facility to complement its ongoing business or adding a new service to better serve its clientele. Appendix A summarizes the elements of a complete feasibility analysis in outline form. Appendix B provides a listing of various types of feasibility studies that have been conducted by members of the University of Georgia Center for Agricultural and Economic Development and the Department of Agricultural and Applied Economics. This listing demonstrates the breadth of types, methodologies and technical designs of feasibility studies as well as the variety of subjects investigated using feasibility studies.

Conducting a Complete Feasibility Analysis

A feasibility study can be divided into two major phases: An analysis of directly influencing factors and an analysis of environmental conditions.

Analysis of Directly Influencing Factors

This phase of a feasibility study is designed to provide basic information required to determine the economic viability of the proposed enterprise. The information will likely be required for loan applications and helps determine whether the enterprise can earn profits and generate sufficient cash flow to repay the loan. In other words, this phase of a feasibility study is designed to answer three questions:

1. What factors must be considered to determine whether the proposed venture should be pursued?
2. How much will it cost to enter the business and what facilities will be needed?
3. How much profit can be made and when can this profit be expected?

The analysis of directly influencing factors can be divided into market determination, raw product supply and the production process.

Market Determination

Determining the market for a product or service is the most difficult part of the analysis to conduct in most feasibility studies. The degree of difficulty is related to the accessibility of potential customers. For example, a farm supply or marketing cooperative considering adding a service for its members may survey its existing membership to secure an indication of demand for the service. However, if the same firm is considering the initiation of a market development program for a product produced by its members, potential customers will need to be identified.

Availability of a market is critical to the success of any business venture. If a market does not exist for a product or service, then there is no economic rationale for producing the product or offering the service and the feasibility analysis can be terminated.

For the remainder of this publication, the term “product” is defined broadly to include a physical product or a service.

Analyzing market potential for a product involves determining current and potential consumption of the product, types and locations of available markets, types of available distribution systems, ways the market can be entered, types of buyers within the market, types of selling arrangements used and the level of prices charged for the product. The following items should be analyzed to determine market potential.

Consumption: Current product consumption and trends must be determined for both the proposed product and competing products. In what forms, qualities and volumes is the product consumed? Which segments of the population consume the product? Are these segments getting larger or smaller?

Markets: Knowledge about the market a firm expects to serve must be obtained. If a firm is considering supplying a new product to its current customers, they may be its market, but the firm may want to expand its market by attracting new customers. Are these markets domestic or international? What will it cost to serve these markets? Who is currently serving these mar-

kets? How will competitors react if another firm enters the market? At what capacity are current competitors operating? Can a new firm compete with existing firms or potential entrants?

Distribution System: Determine the type of distribution system appropriate for the proposed business. Will it be necessary to perform any delivery activities? Will transportation of the product to the market be required? If so, what methods are available? What delivery schedules will be required? Should the firm provide transportation services? If so, should equipment be purchased or leased? What will be the cost of providing distribution services?

Market Entry: Determine how the product will be introduced into the market. Will the product be marketed under the firm’s brand or a buyer’s (wholesaler or retailer) brand? What will get the buyer’s attention: lower prices, advertising and promotion, or some other method? How long will it take to build the market to the desired sales volume? What costs are associated with entering the market?

Buyers: Identify buyers. What types of buyers (retail stores, wholesalers, farmers, manufacturing institutions or others) are expected to purchase the product? What volume is each buyer expected to purchase? Where are the buyers located? What product specifications will buyers require? Have potential buyers indicated an interest in the product? What kind of commitment will potential buyers make to buy the product? How reliable are buyers of this product? What kind of payment schedules will be encountered?

Selling Arrangements: The types of selling arrangements that may be encountered also needs to be addressed. What kinds of selling services must be provided with the product, and what costs will be involved? Should a sales force be maintained or should a broker be used? Should the firm have sales offices? If so, where should they be located? How many salespeople should the firm have? What type of compensation plans should be implemented for salespeople? What will be the cost of providing these selling activities?

Prices: A critical element of the analysis is the price the firm can expect to charge for the product. This can be determined in part by analyzing past prices and price trends. Price projections can then be developed

in light of expected future consumption. Expectations of buyers and other suppliers of the product should be included in the price predictions.

Price prediction is often a difficult task. The process becomes increasingly difficult the further into the future prices are predicted. If prices are characterized by a large amount of variation, future price projections should reflect this historic variability. Often, the process of projecting prices involves determining a relevant range of prices; then you can determine how sensitive financial success is to the level of prices.

Raw Product Supply

This part of the analysis determines availability of raw product inputs for the proposed enterprise. Examples of inputs include fat cattle for a meat packing plant, feeder cattle and feed grain for a feedlot, vegetables for a packing shed or a processing plant, oilseeds for a crushing facility and grain for a feed mill.

Four factors need to be considered when analyzing raw product supply.

Minimum Size Facility: A minimum facility size is necessary to produce output at an acceptable per-unit cost for many products. Most agribusiness firms operate multi-facilities and one of these limits the rest. For example, the processing plant in an integrated broiler operation is usually the limiting facility and all other facilities (such as the hatchery, grow-out and feed mill) must be geared to the processing plant. Thus, if the minimum facility size for a broiler processing plant is 12,000 birds per hour, then all other facilities and operations in the integrated organization must be designed to provide 12,000 birds per hour to the processing plant. In general, the minimum economic size of a facility can be determined by a cost analysis of existing plants or by synthesizing a model facility from specifications provided by equipment companies.

Plant Requirements: The minimum economic size of the facility can be used to determine the required amount of raw product. If, for example, consideration is being given to establishing a 20 head per-hour meat packing plant that will operate eight hours a day, five days a week, 52 weeks a year, then about 41,600 head will be required to operate at capacity. Procurement for the previously integrated broiler processing facility would require about 25 million broilers annually. The

plant must be provided with adequate raw product to facilitate operation at or near capacity if the plant is to be financially viable.

Availability of Required Inputs: After the required amount of raw product is established, determine if this quantity is available in the needed quality and at an affordable price. There is usually a maximum distance from the facility within which the firm must obtain its raw product. In some cases, this distance is determined by the effect on quality of time from harvest to processing. In other cases, transportation costs define the area within which the facility can draw its raw product. For example, most poultry processing facilities limit their production area to 25 miles from the plant.

With these factors in mind, you can determine the availability of raw product. A survey of the defined production area (the drawing area for the facility) is usually necessary. This survey will initially be an analysis of statistical production data for the area to determine if there is enough production of raw material to support profitable operation of the facility. The survey may also include direct contact with area growers to determine future production plans and future price expectations.

Where present volume of production is below facility needs, the survey should focus on potential producers to determine their willingness to begin production of the raw product. For example, the poultry processing plant would require production from about 200 broiler houses. The survey attempts to determine if potential producers in the area have or would be willing to build 200 broiler houses.

Assurance of Future Input Supply: It is not sufficient to know that adequate production for plant needs currently exists in the area. There must be some assurance of future availability of required inputs. Is the source of raw material dependable? What explicit arrangements can be made for procurement? Would growers sign long-term contracts to ensure an adequate source of supply? It is also important to identify the current market use of the raw product and to determine what degree of market entry appears possible. Can the proposed business compete with this alternative use?

The amount of raw material needed to operate the proposed facility at an efficient level can be established

from the Raw Product Supply stage of a feasibility study. This stage of the study will also show whether this raw product is currently available at an acceptable price and if this supply source is dependable.

Production Process

This phase of a feasibility study analyzes the production component of the proposed activity. It assesses specific facility needs, capital requirements, cost and quantity of labor needed, necessary financing, and the potential costs and returns associated with the business venture.

Facility Determination: Determining the minimum size of the controlling facility was discussed under the “Raw Product Supply” section. The facility determination phase of the analysis expands this to include specific facility needs for the entire operation. In this stage, special emphasis must be placed on current technology that the enterprise must consider to compete within the desired business environment.

Also, place special attention on prevention of potential problems that could arise from such social concerns as waste management and air and water pollution. The type and cost of technology required to meet these concerns has become increasingly important as a basic element of feasibility studies.

Investment Capital: Once specific facility needs have been determined, the cost of developing the facility can be estimated. How much capital will be required to meet initial investment needs? Costs of the necessary facilities are based on estimates from equipment companies, construction companies and utility companies.

Labor: Labor requirements can be estimated after facility needs are determined. (Information on how many employees are required to operate the proposed facility is usually available from the companies providing the facilities.) By comparing facility needs to the available local labor force, the issue of adequate labor can be addressed. Two important cautionary points need to be raised. First, identify any special skills necessary to meet labor requirements. Second, it is important to recognize that a given level of local unemployment is not necessarily an indication of the available labor force or of willingness to work at a particular type of work.

Labor needs also involve availability of management and technically trained people. This factor can have a major influence on success or failure of the undertaking. Such talent may be difficult to find in some locations. These key people should be identified during the feasibility study. If they are not available locally, identify them elsewhere and make arrangements for relocating them.

Cost of Operation: This phase analyzes information about wage rates, management costs, raw material input costs, utility rate structures, and fixed costs including depreciation, interest, taxes and insurance. This analysis is used to develop cost budgets for the various phases of the operation. These budgets should provide an estimate of per-unit cost of operation.

Profitability: The profitability of the operation can be projected using the estimates of costs and expected prices. A projected income statement must be prepared to determine the profitability of the operation. Preparation of a break-even chart is recommended. This chart will show the level of production where the proposed enterprise will be able to exactly cover all costs of operation. The chart can be used to determine break-even points for alternative output price levels, wage rates and raw product costs. The break-even chart provides information on the minimum level of production and minimum output price that must be attained to achieve the break-even point.

Working Capital: Completion of the projected income statement does not represent the end of the feasibility study. Another important item to include in the study is the cash flow summary. Provision for adequate working capital is one of the most critical items for the successful operation of a business. A cash flow summary determines the firm’s cash needs and the sources available to meet these needs.

It is important to know how much capital will be needed for day-to-day expenses such as wages, inventories, utilities and raw product, when this capital will be required and its source. Will operating capital be generated from customer receipts, borrowing, membership equity or other sources? A cash flow summary is also required to determine the appropriate size and duration of loans, probable payback periods, and the amount of interest and principal that can be paid back in each period. Many new businesses find themselves

in poor operating condition because they failed to provide for working capital.

The production process stage of a feasibility study provides information on what facilities are needed, how much these facilities will cost, what operational items such as labor, utilities and raw product will cost, how much profit can be expected and how much working capital will be required to operate the business.

In summary, the analysis of directly influencing factors will help the firm avoid costs associated with making a wrong decision and provides a valuable planning tool to implement the new business venture. It analyzes factors that directly affect the success of the operation, such as:

- Assurance that an adequate, profitable market can be secured for the output of the operation.
- Assurance that a sufficient supply of quality raw products can be procured at an acceptable price.
- Determination of facility needs, capital requirements, financing requirements and potential costs and returns from the operation. Analysis of these factors will determine whether the venture will be financially sound and profitable. Knowing that the proposed venture may be unprofitable is as important (if not more so) than confirming the potential for success.

Analysis of Environmental Conditions

A complete feasibility study analyzes the availability of facilities and services that the firm feels are essential to create an acceptable environment in which the plant can operate and its management and labor force can live. This phase of the feasibility study deals with factors affecting the location of the facility. These factors are considered after the general location, as affected by supply of raw product and availability of markets, is determined.

For example, a vegetable packing plant has decided to locate in a specific area of a state and now wants to choose the specific city or town in which to build the plant. The following is a brief outline of factors to consider in this phase of the analysis:

- Availability of a site with required physical characteristics, access to the major production area of the raw product, access to necessary transportation

services and availability of the site on acceptable financial terms.

- Local services in the community, including availability of and rates for electrical power, gas service, telephone service, water and sewer service, fire protection, police protection, medical services, cultural and recreational facilities, postal service, financial services, educational facilities and vocational training facilities. The consideration given to these factors depends on the degree of use the proposed facility expects to make of each service. For example, if the facility will require the import of personnel, such factors as recreation facilities, schools, medical facilities and available housing are important. It is also important to evaluate the availability and rate structure for the use of all required utilities.
- Type of governmental structure, including an analysis of property tax assessment policies, types of taxes, tax rates, zoning ordinances, building codes and pollution and sanitation regulations.
- Transportation facilities, including available transportation modes, adequacy of facilities, record of performance, cost and rates, and regulations or tariffs. This indicates the general type of factors that a new business should analyze before making a specific location decision. The individual factors that should be emphasized depend upon the particular needs of the firm.

Summary

Georgia's agriculture is changing rapidly. To adjust to these changes, farmers and agribusiness firms must constantly search for alternative enterprises and alternative methods of producing and marketing their products. This search must be done in a systematic manner to ensure that alternatives are financially feasible before they are selected. A feasibility study is designed to determine whether a specific alternative is financially viable.

A complete feasibility study analyzes such factors as market potential, raw product supply and the production process as well as such environmental conditions as the availability of facilities and services required by the proposed venture. The venture has the potential to be profitable if all of these factors are analyzed adequately and are determined to be favorable.

It is important to recognize that all business ventures involve an element of risk. Although in any business venture some possibility of failure always exists, a well-prepared feasibility study can substantially reduce the probability of a bad decision.

Management is the final profit-determining factor. The firm must have competent management to follow through on the functions of planning, organizing, directing, staffing and controlling in order to ensure a profitable undertaking.

Finally, recognize that individuals directly involved with the proposed project may have difficulty maintaining an objective perspective. Consider obtaining an objective evaluation from an outsider knowledgeable about the proposed business activity.

The University of Georgia Cooperative Extension is a knowledgeable source for most types of agricultural and agribusiness enterprises and may be able to provide assistance in the evaluation process. Your county Extension agent may have sample feasibility studies and may know of others with professional expertise available to provide technical input to the study.

APPENDIX A

Conducting a Complete Feasibility Analysis

I. Analysis of Directly Influencing Factors

A. Market Determination -- determines potential market for the proposed product.

1. Consumption -- analyzes consumption trends of the proposed product and competing products and determines form, quality and volume requirements.
2. Markets -- determines type, location and cost of serving potential markets.
3. Distribution system -- determines type, method and cost of distribution system for the product.
4. Market entry -- determines method and cost of introducing the product to consumers.
5. Buyers -- determines type of buyers and requirements and costs of selling to these buyers.
6. Selling arrangement -- determines type of selling arrangements, including delivery schedules, pricing arrangements and payment schedules.

7. Prices -- projects expected prices for the product.

B. Raw Product Supply -- determines economic availability of sufficient raw product.

1. Minimum economic size of controlling unit -- cost analysis of existing plants or synthesized models.
2. Plant requirements -- determines quantity of raw product required to support controlling unit.
3. Availability of requirements -- determines if required quantity of raw product is available, and is of suitable quality at an acceptable price.
4. Assured supply of requirements -- determines if required raw product supply can be expected in the future.

C. Production Process -- determines facility needs, capital and financing requirements, and potential costs and returns.

1. Facility needs -- determines specific facilities (buildings, equipment and rolling stock) required.
2. Investment capital needs -- determines initial investment requirements for facilities.
3. Labor needs -- determines specific quantity and types of labor required.
4. Cost of operation -- develops budget to include costs of labor and management, raw material and operational and fixed components.
5. Profitability -- determines potential profit by estimating returns and comparing with cost budgets. Also includes break-even analysis and preparation of projected income statement, balance sheet and cash flow statement.

II. Analysis of Environmental Conditions

A. Availability of site -- determines adequacy of site in physical and economic terms.

B. Availability of services -- determines adequacy and cost of required services such as utilities, financial services and educational services.

C. Governmental structure -- determines type of governmental policies, such as assessment policies, taxes and zoning ordinances, as they affect operations.

D. Availability of transport facilities -- determines adequacy and cost of transportation facilities to be used by the firms.

Appendix B Feasibility Studies for Further Reading

The Center for Agribusiness and Economic Development (CAED) has the following studies on the Center's website, <http://caed.uga.edu/publications>. The studies, completed 2009 – 2011, evaluate the economic feasibility of proposed agribusiness projects and finished business plans.

Feasibility of a Solar Power System, North Georgia, FR-11-11. George Shumaker, Gary Hawkins, and Kent Wolfe. December 2011.

Feasibility of a Solar Power System, South Georgia, FR-11-10. G. Shumaker, K. Wolfe, and A. Luke-Morgan. December 2011.

Feasibility of an Integrated Poultry Processing Operation, FR-11-09. Audrey Luke-Morgan and Kent Wolfe. December 2011.

Distillery Feasibility Study, FR-11-08. Audrey Luke-Morgan and Kent Wolfe. August 2011.

Feasibility of a Small, Special Attribute Peanut Production and Processing Facility, FR-11-07. Ward Black, John McKissick, and Nathan Smith. July 2011.

Feasibility of Value-Added Honey Production, FR-11-06. Audrey Luke-Morgan and Kent Wolfe. August 2011.

Feasibility of a Local Processing Facility, Central Georgia, FR-11-05. Audrey Luke-Morgan and Kent Wolfe. August 2011.

Feasibility of a Local Processing Facility, Northeast Georgia, FR-11-04. Audrey Luke-Morgan and Kent Wolfe. August 2011.

Feasibility of a Local Poultry Processing Facility, FR-11-03. Kent Wolfe, Audrey Luke-Morgan, Sharon Kane, and Jim Daniels. March 2011.

Community Kitchen Feasibility Analysis, FR-11-02. Kent Wolfe and Audrey Luke-Morgan. January 2011.

Feasibility of Retained Ownership and Processing of LSK (Loose Shelled Kernel) Peanuts, FR-10-03. George Shumaker. September 2010.

Ag Center Feasibility Study, FR-10-02. Kent Wolfe. March 2010.

Feasibility of a Small Scale Soybean Crushing Operation, FR-10-01. George Shumaker, Audrey Luke-Morgan, Kent Wolfe, Sharon Kane, and John McKissick. May 2010.

Feasibility of a Multi-Species Meat Processing Facility, FR-09-11. Kent Wolfe, Audrey Luke-Morgan, Jim Daniels, and John McKissick. May 2009.

Feasibility of a Wood Pellet Plant, FR-09-10. George Shumaker, Kent Wolfe, Audrey Luke-Morgan, Sharon Kane, and John McKissick. November 2009.

Feasibility of Expanding Value-Added Fruit Production, FR-09-09. Kent Wolfe, Audrey Luke-Morgan, Jim Daniels, Sharon Kane, John McKissick. November 2009.

Feasibility of a Local Processing Facility, FR-09-08. Audrey Luke-Morgan, Kent Wolfe, and Jim Daniels. August 2009.

Feasibility of a Local Poultry Processing Facility, FR-09-07. Audrey Luke-Morgan, Kent Wolfe, and Jim Daniels. August 2009.

Feasibility of a Two-Million Gallon Per year Biodiesel Plant, FR-09-06. George Shumaker, Sharon Kane, Audrey Luke-Morgan, and John McKissick. September 2009.

Feasibility of a Multi-Species Processing Facility, FR-09-05. Kent Wolfe, Audrey Luke-Morgan, Jim Daniels, and John McKissick. May 2009.

Creamery Feasibility Study, FR-09-04. Kent Wolfe, Audrey Luke-Morgan, and Sharon Kane. April 2009.

Feasibility of a One-Million Gallon Per Year Ethanol Plant, FR-09-03. George Shumaker, Kent Wolfe, Audrey Luke-Morgan, and John McKissick. May 2009.

Feasibility of a Wood Pellet Plant, FR-09-02. George Shumaker, Kent Wolfe, Audrey Luke-Morgan, John McKissick, and Sharon Kane. May 2009.

Pomegranate Processing Feasibility Study, FR-09-01. Kent Wolfe, Audrey Luke-Morgan, Jim Daniels, Sharon Kane, John McKissick, Karina Martino, and Vahe Heboyan. May 2009.





Evaluating a Rural Enterprise

Marketing and Business Guide

Abstract: Evaluating an enterprise boils down to asking a series of good questions. Among these questions are: Do I have the resources to do this? Do I really want to do this? Do I have the experience and information to do this? How much profit can I make? How will I market the products? This publication seeks to provide enough information to help you judge whether a new enterprise is right for your operation. Additionally, we provide a resource section of additional information on relevant topics.

By **Preston Sullivan** and **Lane Greer**
NCAT Agriculture Specialists
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TABLE OF CONTENTS	
INTRODUCTION	1
EVALUATING YOUR RESOURCES	2
FINANCIAL ASSESSMENT	3
EXPERIENCE AND INFORMATION	4
MARKETING	5
CHOOSING AN 'ALTERNATIVE' ENTERPRISE	7
REFERENCES	8
RESOURCES	8

INTRODUCTION

This publication is for people who already live in rural areas and want to add new enterprises to their operations. New farm enterprises today are often non-traditional – everything from adding pastured poultry to a beef operation to starting a bed-and-breakfast in the barn to making a cornfield maze to attract tourists.

This publication won't tell you what will make the most money. Every person and every piece

of land is different and there is no single prescription to tell you what enterprise is right for you. Any new enterprise will, however, require an investment of your time, money, and other resources. And there will always be risks involved.

There are thousands of books, Extension materials, and people who can tell you *how* to produce something, whether it's baskets, bison, or blueberries. But these resources can't help you decide whether that enterprise is right for you and your farm.

We reviewed many enterprise planning guides and have condensed their salient points in this publication. Most of these guides ask entrepreneurs to assess their personal and family objectives. They all stress the importance of having a business plan, a financial plan, and a marketing plan. The business plan will outline how the business should work and generate plans for operation. Perhaps the best thing about a detailed business plan is that it causes you to think in detail about what you are getting into. The **Resources** section at the end of this publication provides titles and ordering information for several useful guides to help determine the feasibility of your new enterprise.

Two of the very best of these publications are *Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm Based Enterprises*, a work-

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book from Cornell University, and *A Primer for Selecting New Enterprises for Your Farm*, a Kentucky Extension Service publication. These guides discuss alternative enterprises and introduce a step-by-step process to assess the objectives, resources, markets, production demands, and profitability of new enterprises. Both include a lot of useful worksheets to help with these assessments. See the **Resources** section for more information on how to order these publications.

EVALUATING YOUR RESOURCES

Before committing to a new enterprise, there are always fundamental questions that ought to be addressed. These may be practical (What are the business/management skills of those involved?), organizational (Does everyone involved agree on how the business should be run?), or philosophical (Does everyone involved know, understand, and agree on the objectives, both short- and long-term?). The following are typical of the kinds of questions suggested in the sources we reviewed.

Marketing

- Where am I going to sell the products?
- Who is the customer?
- What is the size of the potential customer base?
- Where do the customers live, and how will their location influence my selling to them?
- What are the customers' needs and desires?
- Am I going to sell directly to consumers?
- Am I going to wholesale to the commodity market?
- What are the seasonal price fluctuations I can expect?
- What are the quality standards that I must meet?
- How many hours will it take to research direct markets?
- Are there legal or food-safety considerations?

Personal

- Do I have time to devote to this new enterprise?
- Does the workload correspond with the time of year I want to work?

Will the new enterprise complement my current enterprises?

Do I have written objectives describing the desired outcome?

Do I have the skills and experience necessary to do this?

Do I like to supervise people?

Have I managed a business before?

Do I have enough personal energy to do this?

Can I count on my family members for support?

Do I care what the neighbors think about my new enterprise?

Why do I want this enterprise?

After you have determined that the enterprise is something you really want to do, consider these additional questions (for land-based enterprises):

Land

What is the water drainage like?

Are the soils suitable?

What is the seasonal rainfall pattern?

What will happen to my enterprises during a flood or drought?

Are these plants or animals adapted to this climatic region?

Are there water resources available for irrigation or for watering livestock?

Do I want concurrent uses for the land such as wildlife conservation, fishing, or hunting?

Buildings and Machinery

Do I have adequate facilities?

What additional machinery will I need?

Can I rent or borrow machinery or storage facilities?

Labor Needs

How much labor will be required?

What is the source of labor?

How much will it cost?

Is seasonal labor available?

Will I need housing for my workers?

Does this enterprise use existing labor in off-seasons?

There are many resources that can guide you in your search for the answers to these questions. See the **Resources** section at the end of this publication for more information.

FINANCIAL ASSESSMENT

After you have answered the above questions, you'll have a better idea of what costs will be involved in a new enterprise, and that information will help you determine the profit potential. It is advisable to do the following exercise before spending more time or money developing the logistics of production or a full enterprise budget.

One way to compare enterprises for profitability is to calculate a **gross profit analysis** (Savory and Butterfield, 1999), otherwise known as gross margin analysis (Kay and Edwards, 1994) or a contributory margin (Zimmerman and Villanueva, 2001). The gross profit or margin is the amount of money left over after all the *new* costs associated with the new enterprise are subtracted from the gross income generated by that new enterprise. These *new* expenses are separate from the general overhead expense, because they are incurred *only* if the new enterprise is implemented. In other words, these are the variable costs associated with a new enterprise.

To avoid confusing comparisons, do not prorate the overhead (fixed costs) for enterprises in this exercise. You will get more accurate results by assuming that the entire overhead cost must be paid out of the gross profit from the enterprise. For example, if you need to use your tractor in a new venture, the cost of owning the tractor (payments, insurance, etc.) is already fixed. But the direct expense of using the tractor in your new enterprise (fuel, routine maintenance) can be assigned to the operating cost of the venture that uses the tractor. By subtracting these operating costs from the total sales, you arrive at the gross profit. The gross profit from all enterprises combined must be at least enough to cover the overhead or you will go broke.

Table 1 shows the gross margin for a sweet corn enterprise. Figures are generated on a per-acre basis and so can be compared to any other enter-

prise on a per-acre basis. Notice how *only* the costs directly related to that enterprise are included in the gross profit analysis. Land rent could also be included, but if the land is already owned or mortgaged, it should be left out of this analysis and considered a fixed cost. With this sweet corn enterprise we have \$2,444 gross profit left to pay overhead costs and, ideally, provide a profit, if a profit was initially projected.

Table 1. Gross profit for one acre of sweet corn.

Total Income	Dollars
1,200 dozen @ \$2.50	\$3,000.00
Variable Costs	
Seed	\$ 50.00
Fertilizer	\$ 35.00
Weed Control	\$ 18.00
Machinery Use	\$ 83.00
Harvesting	\$ 345.00
Hauling	\$ 25.00
Total Variable Costs	\$ 656.00
Gross Profit/acre	\$2,444.00

To make valid comparisons between enterprises using gross profit or margin analysis, use a common unit of measure. A common unit for agriculture is gross profit per acre. For some other enterprises, units to consider might be profit per hour or \$/bushel or \$/cwt. Using a common unit will allow you to compare dissimilar enterprises—such as broccoli for fresh market sales and goats sold wholesale. A per-acre comparison shows the best return on the land. Another good use of the gross profit analysis is to compare all your existing enterprises for their contribution to covering overhead costs. The results may surprise you. For example, you may find that the principal enterprise is actually being supported by several secondary enterprises.

In cases where there is no overlap between two enterprises, a direct comparison may not be pos-

sible. An example of this would be if you already had grazing and timber enterprises and wanted to add a lease-arrangement hunting lodge to the same land. The only variable costs associated with the enterprise might be legal fees, renovation costs on the house, and maintenance. In this case, if the gross profit was still high, and you responded positively to the personal questions above, you would go ahead with the enterprise.

The gross profit analysis does *not* preclude full financial planning for each enterprise and for the whole farm. If, for example, the overhead costs are in excess of all the income generated, you will go broke. If you are buying new equipment (fixed cost) specifically for an enterprise, that cost can be assigned to that enterprise and amortized over the useful life of the machinery. If you borrow money to buy the equipment, the loan payment can be allocated as a variable expense for the enterprise gross profit analysis. In the whole-farm budget, all the income from all the various enterprises will be included, along with the variable costs for each and the overhead expenses.

Full planning budgets used to estimate costs for many farm enterprises should be available from your local Extension service. Others can be found at: <http://www.fbminet.ca/bc/budget.htm>, a web site with enterprise budgets for a large number of crop and livestock enterprises. The budgets at this web site use the term “contribution margin” to describe gross profit. These budgets are separated into contribution margin and buildings and machinery replacement costs (overhead). The budgets are laid out in an easy-to-read format with an overview preceding the tables. Each enterprise budget contains marketing alternatives, cash flow timing, and key factors affecting profit, with margin estimates already calculated. When calculating your cost of production, be sure to use reliable estimates for your situation and include other costs that may not be listed in the budget. It is also useful to project poor, average, and good production scenarios for each enterprise. If you cannot be profitable with poor production, consider another enterprise.

EXPERIENCE AND INFORMATION

“The most salient requirement for farming is experience” (Nation, 1998). Practical experience is particularly important for a new enterprise, especially if the enterprise is not related to what you normally do. You can gain a lot of the necessary knowledge from people who are currently doing what you are considering. Apprenticing with someone who is already farming, or just volunteering some time, is a good way to get experience. (See ATTRA’s resource list [Sustainable Farming Internships and Apprenticeships](#) for more information on experiential farm work across the country.) Also, start out small with your own enterprise until you learn the basics. *Stockman Grass Farmer* editor Allan Nation (1997) suggests these four stages when considering a new enterprise:

1. *Get the knowledge you need to produce and market the product.*
2. *Produce it for yourself and your family.*
3. *Produce it for your friends who have tried it, like it, and ask you for it.*
4. *Do it as a business.*

Although this approach may seem slow, it will go faster and require a lot less startup investment than jumping in and trying to learn as you go.

Gathering information on specific enterprises is also an important step when considering diversification. Your local Cooperative Extension Service and other USDA agencies can provide fundamental information about some alternatives, as can non-profit organizations in your state. You can also contact Extension specialists at your state’s land-grant university. Other sources of information include websites and publications (books, magazines, and newsletters). The resource list at the end of this publication also provides helpful information.

Often, however, even though there is production information for a specific crop, there is little information available on budgets or markets. Your best resource in a situation like this will prob-

ably be a farmer who is already raising, or someone who is already buying, the crop or a similar crop. A good way to find farmers is to attend state or regional workshops or conferences that are in some way related to your area of interest. Extension puts on workshops throughout the year that provide an opportunity to network with your fellow growers. The approach to finding buyers would be similar. For instance, if you are interested in adding cut flowers to your farm's mix, you might attend a statewide conference for florists.

MARKETING

Author and business consultant Peter Drucker says that only two activities produce results. One is innovation, and the other is marketing (Nation, 1997). Marketing may take many forms, ranging from passive marketing into the commodity chain all the way up to marketing a retail product directly to consumers. Which marketing method you choose will have a profound effect on the price your product commands. Prices in many prepared budgets will typically be wholesale prices. Adjust these prices to your local market (retail or wholesale) based on what you can realistically expect to get paid. Visit with other farmers in your area who are selling the same thing you want to sell, or go to the local farmers' market and check out prices.

There are two important reasons for doing market research:

- You need to understand your market, your competition, and consumer trends
- You need to be able to project potential sales volume and prices (Grudens-Schuck and Green, 1991)

The Cornell *Farming Alternatives* guide mentioned earlier has marketing worksheets that address the following considerations:

- *Target Market Descriptions*
The demographics of people you want to sell to (age, gender, family status, income level, class, occupation, children, marital status, location, ethnic group, education).

- *Marketing Options*
These include any method used to sell or distribute your product (Grudens-Schuck and Green, 1991). Examples are selling directly to consumers from the farm; farmers' markets; selling directly to restaurants; cooperative marketing; selling wholesale to a distributor, broker, or processor; etc. Identify your most promising options. Also consider transportation needs and distances to market.
- *Market Entry*
How will you introduce the product to the market? Will it be marketed under the producer's or processor's name? What will get the buyer's attention (advertising and promotion)? (Schermmerhorn).
- *Existing Market Demand*
How many potential buyers are included in your target market at this time? What is the average purchase or frequency of service per buyer per year? What are the total purchases or number of services per year?
- *Competition*
Analyze your competition: business name, estimated sales volume, quality of product, price, customer satisfaction, appearance, type of buyer targeted, strengths, weaknesses. "Direct competition" offers the same product you do; "indirect competition" is anything your target market can substitute for your product. Remember: alliances can be formed with competitors.
- *Market Trends*
Has consumption been increasing? Is the number of competitors increasing? What are your projections for market trends in the next five to ten years? What are the industry trends and emerging markets?
- *Expected Price*
There are many formulas and strategies for setting prices. What is the lowest price you can expect to receive? What is the

highest price? Ultimately, pricing will reflect your competition, costs of production, quality, service, the convenience you provide, and the types of buyers you have targeted.

- *Expected Sales Volume*

What is the least number of units you might sell in a bad year? How many in a good year? What is the expected sales volume? How long will it take to build the market to your desired sales volume?

Direct marketing involves personally connecting with consumers, determining what they want or need, and producing the products that meet their needs. Author Joel Salatin, who raises pastured beef and poultry in Virginia, suggests several things to think about when deciding on pricing your products. First, don't under-price them. Farm-produced products are superior because they are more environmentally friendly and humanely produced. Salatin suggests that producers set a rewarding and satisfying gross margin and then stick to it. This will allow you to build a customer base with clients who appreciate the product for what it is, not for what it costs (Salatin, 1998). Your estimated price can be used to calculate returns in any enterprise analysis.

Direct marketing depends on building relationships with customers. In fact, the term *relationship marketing* has been used to describe the best methods of direct marketing for family farms. In an article in *The Stockman Grass Farmer* (Nation, 1997) Joel Salatin sets out five advantages of relationship marketing. They are:

Consumer Education. The producer has to tell the consumers why his farm products are different from those bought in the grocery stores. This is not only good for business, it is also a small step toward the development of the consumer's awareness about farm, social, and health issues that affect our lives.

Product Quality. When the producer raises crops or livestock in an environmentally friendly or sustainable fashion, it is easier not to compromise the quality of the products.

Customer Loyalty. When the consumer knows the producer personally, the relationship between them is not easily broken. Good sellers know and use their customers' names. Loyalty helps bring in repeat customers.

Lifestyle. As Salatin explains, "I think one of the biggest differences between the pressures I encounter as a small operator and the pressures encountered by the big operators is the amount of control we have over the situations that cause pressure" (Nation, 1997).

Balance. The first rule of business is that the customer is always right, but that doesn't always mean you have the right customer. In some instances, removing a name from your customer list may help to balance the producer-consumer relationship, so that you can concentrate on profitable sales, appreciative customers, people who "get with the program" (Nation, 1997).

Allan Nation says, "If you are considering getting into direct marketing, don't bet the farm on it. Keep doing what you are doing for a living and start learning and experimenting on a small scale. Try the food you produce on your family and your friends first. If your family and friends are not crazy about it there is more learning to be done. Nation adds that, "A new business needs virtually 100% customer satisfaction from day one to survive" (Salatin, 1998).

So the bottom line is to establish markets *before* you begin the enterprise. If you are direct marketing, consider these questions before starting production: What do the people in my area want? What are their tastes? Are they accustomed to "store bought" eggs, meat, and vegetables? What matters most to people in my local area—convenience and price? Are they willing to *pay* for the quality and freshness of locally grown food?

For more complete information on direct marketing, call and request the three ATTRA publications entitled *Direct Marketing, Farmers' Markets*, and CSAs. The direct marketing publication includes information about resources,

market development, market research, marketing plans, niche marketing, product differentiation, farmers' markets, value-added marketing, and examples of real farmers who have done it. It also provides a list of recommended resources to consult when considering your market plan.

CHOOSING AN 'ALTERNATIVE' ENTERPRISE

There are many kinds of enterprises that can be profitable in a rural area. Ken Scharabok's book (see **Resources**) describes 300 specific rural enterprises. Cornell University's publication *Farming Alternatives* lists several broad categories:

1. *Nontraditional crops, livestock, and other farm products*
2. *Service, recreation, tourism, food processing, forest/woodlot, and other enterprises based on farm and natural resources*
3. *Unconventional production systems such as organic farming and aquaculture*
4. *Direct marketing and other entrepreneurial marketing strategies*

When considering alternative enterprises, you should look first at your farm's underutilized resources and your area's market opportunities. Underutilized resources might include unused buildings, or manure that could be sold as fertilizer. New market opportunities may arise as a result of changing demographics in your area—there may be an increase in immigrant families who want specialty foods, or of affluent businesspeople who commute to a metropolitan area ([Grudens-Schuck and Green, 1991](#)).

One very important change in national demographics is the number of people who have become dissociated from the land. Few of the baby boomer generation and almost none of Generation X have lived on and worked the land. In an effort to re-establish that bond, young consumers are often eager to support small farms, and they're willing to put their money where their mouth is. The huge increase in the number of farmers' markets around the country not only means that consumers are interested in fresh pro-

duce, it also reflects their desire to have a different kind of food shopping experience. For similar reasons, community supported agriculture arrangements (CSAs) have become popular. Both farmers' markets and CSAs bring shoppers closer to farmers and to the land, an experience that is largely lacking in today's urban society. An extension of these encounters is a farm visit, whether it's for a hay ride, to go to a petting zoo, or to attend an apple festival. Consumers like to feel that they are helping to keep small, family farms alive. This kind of experience requires farmers to learn new skills: how to deal with the public, the ability to assess unique opportunities on the farm, and the vision to produce a feeling as well as a product.

In his 1998 book *You Can Farm*, Joel Salatin recommends ten enterprises that he considers excellent: pastured poultry, eggs, salad bar beef, a grass-based dairy, a market garden, a home bakery, a bandsaw mill, and a you-pick small fruit orchard. His criteria for recommending these enterprises are:

- Low initial start-up cost relative to the ability to generate income
- High gross profit margin
- Relatively low maintenance requirements
- High cash flow relative to expenses
- History of high success rates among new enterprises
- High demand, low supply in the current marketplace
- High product distinctiveness
- Relatively size-neutral profit potential

"The goal here is to examine what the profitable alternatives are in the current paradigm and how you can fit in the picture" ([Salatin, 1998](#)).

There are lots of places to find out more about specific enterprises. The Missouri Alternatives Center's website provides many links to specific production information for various alternative enterprises. This website is extensive and up-to-date <<http://agebb.missouri.edu/mac>>. Additionally, we have listed many valuable resources below.

REFERENCES

Grudens-Schuck, Nancy and Judy Green. 1991. *Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm-Based Enterprises*. Northeast Regional Agricultural Engineering Service, Cornell University, Ithaca, NY. 88 p.

Kay, R.E. and W.M. Edwards. 1994. *Farm management*, 3rd edition. McGraw Hill, Inc., New York, NY. 458 p.

Nation, Allan. 1998. Allan's Observations. *Stockman Grass Farmer*. Vol. 56, No. 6. p. 13.

Nation, Allan. 1997. *Paddock Shift*. Green Park Press, division of Valley Publishing Corp., Jackson, MS. 184 p.

Salatin, Joel. 1998. *You Can Farm*. Polyface, Inc., Swoope, VA. 480 p.

Savory, Allan and Jody Butterfield. 1999. *Holistic Management: A New Framework for Decision Making*. Island Press, Washington, DC. 550 p.

Schermerhorn, Richard W. No date. *Is Your Agribusiness Project Feasible?* University of Georgia Cooperative Extension. <<http://www.ces.uga.edu/pubcd/b1066-w.html>>.

Zimmerman, K. and E. Villanueva. 2001. *Fresh sweet corn direct marketed (Fraser Valley)*. Planning for Profit. British Columbia Ministry of Agriculture, Food and Fisheries. 8 p.

RESOURCES

Publications and Videos

Salatin, Joel. 1998. **You Can Farm: The Entrepreneur's Guide to Start and Succeed in a Farm Enterprise**. Polyface, Swoope, VA. 480 p.

Perhaps the best single resource for beginning farmers, this book also provides good information on enterprise differentiation and evaluation.

Available for \$30 from the author at:

Polyface Inc.
Rt. 1, Box 281
Swoope, VA 24479
540-885-3590

The book is also available for \$24.50 from:

<http://www.amazon.com>

Grudens-Shuck, N. and J. Green. 1991. **Farming Alternatives: A Guide to Evaluating the Feasibility of New Farm Based Enterprises**. Farming Alternatives Program, Cornell University, Ithaca, NY. 88 p.

This publication uses a step-by-step process to assess goals, resources, markets, etc. Includes worksheets. Available for \$8 from:

Media Services Resource Center
7 Business & Technology Park
Cornell University
Ithaca, NY 14850
607-255-2080
FAX: 607-255-9946
<http://www.cornell.edu/publications.catalog.html>

Farming Alternatives: Innovation on Northeast Farms. A 14-minute video produced in 1988.

Explores the issues involved in the development of farm-based enterprises such as deer farms, farm markets, bed and breakfast inns, herb gardens, petting zoos, and farm-processed foods. Available for \$18.95 from the Cornell address above.

Woods, Tom and Steve Isaacs. 2000. **A Primer for Selecting New Enterprises for Your Farm**. Cooperative Extension Service. University of Kentucky. *Agricultural Economics - Extension* No. 00-13. 28 p.

Covers profitability, resources, information, marketing, enthusiasm, and risk. Has many useful worksheets from which accurate information can be generated to guide your decision making.

Available online at:

<http://www.uky.edu/Ag/AgEcon/publications/ext2000-13.pdf>

Scharabok, Ken. 1996. **How to Earn Extra Money in the Country**. A Country Living Resources Guide.

Contains over 300 descriptions of enterprises that can be pursued by rural residents. Each description contains information on what the market would be, how to start the business, and additional resources on that particular business. Contains many innovative business ideas. Available in electronic form only by e-mailing <scharabo@aol.com>.

Humphrey, Shirley (ed.). 1994. **Small Farm Handbook**. Publication SFP001. Small Farm Program, University of California. 170 p.

Somewhat regionally specific to California, but contains good information on finances, marketing, enterprise ideas, growing crops, raising animals, postharvest handling, alternative agriculture, labor management, and keeping the family farm healthy. Available for \$20 from:

Division of Agriculture and
Natural Resources (DANR)
University of California
6701 San Pablo Ave.
Oakland, CA 94608-1239
800-994-8849
510-642-2431

Small Farm Center. 1998. **Specialty and Minor Crops Handbook, 2nd ed.** University of California. Division of Agriculture and Natural Resources, Oakland, CA. 184 p.

Compiled and edited by scientists, University of California Cooperative Extension advisors, and growers, this handbook profiles 63 specialty and minor crops, including information on production and marketing. Available for \$35 from DANR at the University of California (see address above).

Thompson, Nancy C. 1994. **Sustainable Agriculture Enterprises: Opportunities for Employment and Economic Development in a Sustainable Agriculture System**. 21 p.

Available for \$8 ppd from:

Center for Rural Affairs
P.O. Box 406
Walthill, NE 68067
402-846-5428
<http://www.cfra.org>

Olson, Michael. 1991. **Metro Farm: The Guide to Growing for Big Profit on a Small Parcel of Land**. TS Books, Santa Cruz, CA. 520 p.

Contains information on marketing, selecting crops, organizing a business, selling, and production. Available for \$29.95 plus \$5 S&H from:

Schatz Publishing Group
11950 W. Highland Ave.
Blackwell, OK 74631
888-474-6397 (toll-free)
<http://www.agventures.com/>

Savory, Allan and Jody Butterfield. 1998. **Holistic Management: A New Framework for Decision Making**. Island Press, Washington, DC. 550 p.

Provides valuable information for goal setting, financial planning and farming in tune with nature's principles. Available for \$30 (softcover) or \$50 (hardcover) from:

The Allan Savory Center for Holistic
Management
1010 Tijeras NW
Albuquerque, NM 87102
505-842-5252
505-843-7900 fax
<http://www.holisticmanagement.org>

Periodicals

AgVentures: The Magazine of Agricultural Opportunities is published bi-monthly. It features new and unusual crops and livestock to raise. It is available for \$21/year from:

AgVentures
11950 W. Highland Ave.
Blackwell, OK 74631
580-628-4551
580-628-2011 fax
<http://www.agventures.com>
e-mail: agventures@aol.com

Ag Opportunities is a newsletter published by the Missouri Alternatives Center (MAC) that is devoted to the latest ideas and opportunities for those "who want to begin farming, diversify their current operations, or find ways to profit from

small amounts of acreage." Subscriptions cost \$10 a year (free to Missouri residents). An on-line version is available free at MAC's website < <http://agebb.missouri.edu/mac>>. Contact MAC at:

Missouri Alternatives Center
531 Clark Hall
Columbia, MO 65211
573-882-1905
800-433-3704 (MO only)
<http://agebb.missouri.edu/mac>
e-mail: kellid@umsystem.edu

Small Farm Today, published bi-monthly, focuses on small farming, rural living, sustainability, community, and "agripneurship." The editor and staff hold an annual conference in Columbia, Missouri (around the first week of November) that concentrates on topics of concern to small farmers considering diversification strategies. The periodical is available for \$23.95/year from:

Small Farm Today
3903 W. Ridge Trail Rd.
Clark, MO 65243-9525
800-633-2535
573-687-3525
e-mail: smallfarm@socket.net

Organizations

Center for Rural Affairs

P.O. Box 406
Walthill, NE 68067
402-846-5428
<http://www.cfra.org>

The Center for Rural Affairs, a non-profit organization, publishes The Beginning Farmer, a free quarterly newsletter. They also published a 118-page book entitled Resourceful Farming: A Primer for Family Farmers, written in 1987, available for \$7.

Community, Food, and Agricultural Program (CFAP)

216 Warren Hall
Cornell University
Ithaca, NY 14853
607-255-9832
<http://www.CFAP.org>

The mission of CFAP is to support Agriculture and Food Systems-based Community Development in New York and the Northeast through integrated and multi-disciplinary teaching, research, and extension programs.

NxLevel's Alternative Agriculture series: Tilling the Soil of Opportunity

A Training Course
(No physical address)
e-mail: Info@nxlevel.org
800-873-9378

The NxLevel agriculture program is designed to help a broad range of small to mid-sized farmers, ranchers, food processors, distributors, retailers, food professionals, and others working in the agricultural sector take their business to the "next level." Educators in each region adapt the course to meet local needs. The materials used in the 10-session course are specifically designed for those searching for innovative ideas and better marketing opportunities in the area of agriculture.

Web Sites

Fact Sheets on Operating a Profitable Small Farm. University of Maryland.
<http://www.agnr.umd.edu/users/frederick/pubs>

Planning for Profit. British Columbia Ministry of Agriculture, Fisheries and Food.
Numerous two page enterprise budgets.
<http://www.fbminet.ca/bc/budget.htm>

Alternative Enterprises for Your Forest Land: Forest Grazing, Christmas Trees, Hunting Leases, Pine Straw, Fee Fishing and Firewood. This is a 1988 publication from the University of Florida Extension Service.
<http://www.sfrc.ufl.edu/Extension/pubtxt/cir810.htm>

Missouri Alternatives Center. Links to specific production information for numerous alternative enterprises.
<http://agebb.missouri.edu/mac>

Enterprise Budget Analysis. Penn State's Agriculture Alternatives website.

Sample formats are given.

<http://pubs.cas.psu.edu/FreePubs/ua258.html>

Economic Analysis of a New Business – Doing it Right. Kansas State University Cooperative Extension Service.

<http://www.oznet.ksu.edu/library/agec2/MF2184.PDF>

By **Preston Sullivan** and **Lane Greer**
NCAT Agriculture Specialists

Edited by **Paul Williams** and **Richard Earles**
Formatted by **Cynthia Arnold**

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The electronic version of **Evaluating a Rural Enterprise** is located at:

HTML

<http://www.attra.ncat.org/attra-pub/evalrural.html>

PDF

<http://www.attra.ncat.org/attra-pub/PDF/evalrural.pdf>

Appendix 12



BUSINESS PLANNING RESOURCES

The guide provides the following resources:

- What is a business plan?
- Elements of a business plan
- Business plan self-assessment
- Planning for Profits Planning Templates

WHAT IS A BUSINESS PLAN?

What is a business plan?

Your business plan is your roadmap to success. It is crucial to defining your farm's future, staying on track, and sharing it with others.

What is the benefit of having a written business plan?

- Creates opportunities to prioritize and provide clearer direction and confidence for management decisions to increase profitability, improve debt management and reduce costs.
- Manages risk and reduces uncertainty, stress and anxiety.
- Prepares for farm transition/retirement.
- Solidifies the farm team, creating harmony and a crucial support network including family, business partners and advisors.

Having a written business plan, is one of the 7 business management practices driving farm financial success¹.

- 1) Lifelong learning and skills development
- 2) Seeking the help of business advisors/consultants
- 3) Business decisions made using accurate financial data
- 4) Having a written business plan, following, and reviewing it annually
- 5) Knowing, monitoring your cost of production and what it means for your profits
- 6) Assessing risks and having a plan to manage and mitigate risk
- 7) Using a budget and financial plan to monitor financial position and options

TIP: A business plan is a living document that you should revisit, revise and reference often as your business evolves over time.

- **Assess, Plan, Implement, Review.** Measure your progress towards achieving your business goals over the past year and start to think about next year's goals.



ELEMENTS OF A BUSINESS PLAN

Guide for Recommended Sections for Your Farm Business Plan

COVER PAGE

Insert your farm name, owners, address, email, website, and telephone
Add farm picture, Instagram, Facebook, logo (if applicable)

EXECUTIVE SUMMARY

Clearly states who you are (farm history), size, location, what your business does, key accomplishments, future business growth plans and how you will be successful.

Farmers with a written business plan average a return on assets five times higher than those without (Rob Hannam [Pledge To Plan -How to make business planning work for you and your farm](#))

BUSINESS STRATEGY

What are the goals of your business? What are your mission and vision statements for your business?

What do you want your farm to look like in the short term (1-2 years), medium term (3-5 years) and long term (more than 6+ years)?

Action Plan: What are the actions, or sequence of steps that you need to take to bring you closer to your farm vision and goals? Who is responsible for each step, and the timeline for each?

Resources: [Programs and services to help reach your goals \(AAFC\)](#)

OWNERSHIP, MANAGEMENT, AND HUMAN RESOURCES

Business structure: Describe the ownership structure of the business (Sole Proprietorship, Partnership, Joint Venture, Incorporated Company, Co-operative).

Key Partners: Describe any key business partners (including consultants and subject matter experts who provide you with advice and who you rely on to run your business) and written agreements essential to your business (e.g., lease agreement with landowner).

Employees: Provide job descriptions for the key employees with their qualifications and training. Who are the family members involved in the family business and how are they involved (including yourself)? Who are the non-family members who work on the farm, and what do they do? Do you have a planned annual performance review?

Human Resource Plan: Do you/your employees have the skills to do the job? If your human resource needs are NOT being met, what is your plan to attract and retain new employees? Do you have an organizational chart and health and safety plan?

Succession Plan: Describe your exit strategy. What family members are involved in the farm business transition? What are the expectations of each generation?

Resources [Agri HR Toolkit \(Canadian Agricultural Resource Centre\)](#)

MARKETING STRATEGY

Industry and Competition: List and describe your competitors. What sets you apart from others in the marketplace? What are your key strengths?

Market Research: What is the market size and industry outlook? Who are the people or businesses you can form an alliance with, to compliment or refer each other's business?

Target Market: Describe who buys or will buy your products (customer profile, local market, provincial markets etc.). How do you get feedback from your existing or potential customers?

Marketing Goals: What are your marketing goals in the short term (1-2 years), medium term (3-5 years) and long term (more than 6+ years)?

Sales Channels: Describe how you will sell your products. How do you plan to reach your customers (e.g., farm stand, Community Supported Agriculture (CSA), farmers' markets, eCommerce, distributor, direct to processor, retail, food service)?

Sales Calls: When will you make your sales calls? Do you have a plan in place (time of month, season etc.)?

Product Promotion: How do you use social media? Do you have Facebook, Instagram, or a website? Will you offer special promotions (bulk sales, discounts etc.), how and when will you launch the promotions?

Products and/or Services: Describe what products will be sold (quantity and type) and what makes them marketable.

Hours of operation: What days are you open to the public and what are your hours of operation?

Product Pricing: Describe how you price your product(s). How do they compare to your competition?

Resources

[How to Develop and Use a Social Media Marketing Plan \(PDF, 2 MB\)](#)

[How to Determine the Right Retail Price for your Product \(PDF, 1.18 MB\)](#)

[B.C. Ministry of Agriculture, Food and Fisheries Market Development and Guides](#)

[How to Conduct and Use Market Research \(PDF, 542 KB\)](#)

[Small Business B.C.'s How to write a Marketing Plan](#)

PRODUCTION PLAN

Existing Production: Describe existing production. Provide an overview of production activities during a production cycle for a crop, and/or by season or fiscal year.

Production System: Provide a brief description of the crop or livestock production cycle, including the number of animals and acres/hectares in production. Maintain crop and/or livestock records for production inputs, application rates and resource use (seed, fertilizer etc.).

Future Production Goals: Describe your future production goals by crop or livestock enterprise in the short term (1-2 years), medium term (3-5 years) and long term (more than 6+ years)? How do you plan production according to market changes, prices, business results, environment?

Future Production System: Provide a brief description of the future crop or livestock production cycle, including the number of animals and acres/hectares in production.

Suppliers: Who are your key suppliers (seed, fertilizers, packaging etc.)? Do you know your lead times from suppliers?

Staff Requirements: If you require additional staff during planting, growing, or harvesting season, how do you plan to attract and retain employees during this time?

Added Value Processing: Provide a brief description of any value added product (combined with other products and/or processed in some way) you sell or would like to sell (if applicable).

Site Plan, Pictures, and/or Diagrams: It is useful to have a Site Plan to assist in your production planning. A site plan is essential in emergency planning preparedness. Strategically placed pictures and/or to scale diagrams can easily illustrate information and add value to the reader.

Resources

The **BC Soil Information Finder Tool** or SIFT provides access to soil survey data, reports, and maps. It is a very useful tool that can help to learn about the soil in your area. You can access the tool through this [link](#).

Crop Planning for Vegetable Growers book by Frederic Theriault and Daniel Brisebois: <https://cog-shop.myshopify.com/products/crop-planning-for-vegetable-growers>

Online resources and spreadsheets include **Johnny's Select Seeds**: <https://www.johnnyseeds.com/growers-library/online-tools-calculators.html>.

Target Harvest Date Calculator helps growers work backwards from their target harvest

period: <https://www.johnnyseeds.com/growers-library/calculator-seeding-date-targeting-specific-harvest-date.html>

[BC FireSmart Wildfire Preparedness Guide 2019](#)

FINANCIAL PLANNING

To assess your current financial situation and growth over time.

Start Up Costs (for New Entrants) include what you need to start your farming enterprise and how you will fund it. Includes land, buildings, equipment, livestock, inventory.

Net Worth Statement is a snapshot of a business at a particular point in time.

Income and Expense Statement shows revenues and expenses and the resulting net income after all expenses have been deducted from the revenues.

Sales Revenue: Provide (projected) sales revenue and net return by farm or by enterprise.

Cost of Production by Enterprise (Contribution Margin): Describe production and labour expenses required to produce a type of crop(s) or a type of livestock (e.g., seed, feed, fertilizer, labour, etc.).

Cash Flow Statement records the probable flow of cash in and out of the business, from all sources and for all purposes, to determine what will be available to meet financial commitments. A monthly cash-flow forecast should cover at least 12 months.

Partial Budget estimates the change in probable income and expenses that are likely to occur from making a change in a portion of your operation.

Sensitivity Analysis estimates the impact of changes in production and/or price and other factors such as rising interest rates to determine projected cash flow and the breakeven point of your business. Can cash flow be improved by restructuring your debt and mitigating this risk with different products and interest rates? What is the worst case scenario that may require you to close your business?

Key Performance Measures: How do you measure success (time with family, family harmony, achieving financial goals, achieving business goals, a well-run operation, profitability, growth, customer satisfaction, no financial stress, peer recognition)?

Do you monitor your financial situation monthly? Semiannually? Yearly? Using up to date financial statements can help you to make informed business decisions.

There are some financial ratios that may help you evaluate your current financial situation, and growth over time. These ratios can vary between types of operations and should be discussed with your accountant or advisor.

Resources

FCC's farm financial fitness <https://www.fcc-fac.ca/en/ag-knowledge/ag-economics/operating-expense-ratio-protect-profitability-and-your-financial-fitness.html>

[Ag Expert Analyst: Accounting software built for the farm](#)

RISK ASSESSMENT AND MITIGATION

A SWOT Analysis (strengths, weaknesses, opportunities, and threats) allows you to evaluate your business from all angles.

Strengths: Describe the characteristics that give you and/or your business an advantage over others.

Weaknesses: Describe the characteristics that put you and/or your business at a disadvantage relative to others.

Opportunities: Describe the characteristics that are likely to contribute to your success.

Threats: Describe the characteristics that are likely to negatively impact your success. TIP: How susceptible is your product to disease outbreak? Is weather a significant factor? Do you expect any changes in policy and/or legal regulations that you must adhere to?

Operational Risks: Describe any significant changes that could impact the operation. Pay attention to production – plan production according to market changes, prices, business results, environment.

Risk Mitigation: Describe how you plan to mitigate potential threats and operational risks to your business e.g., marketing risks, human resource issues (recruitment, retention, safety), interest rates & financial risks, food safety, quality assurance, regulatory inspections, liability insurance (life/crop insurance etc.) and environmental management.

Resources

[How to Conduct and Use a SWOT Analysis \(PDF, 1 MB\)](#)

Risk-Based Approach: Requirements are tailored to environmental risk; operations in high-risk areas and during high-risk conditions will need to take more protective measures.

There are three types of high-risk areas; areas with high precipitation, areas over vulnerable aquifers and areas that are phosphorus-affected. To find out if you are operating in a high-risk area, see high risk maps at [High Risk Areas](#).

[Environmental Farm Plan Program](#) supports producers to complete environmental and climate change risk assessments related to agriculture.

[Taking Stock \(PDF\)](#)

[Taking Stock for the Beginning Farmer \(PDF\)](#)

[Taking Stock - A Processor Business Planning Workbook \(PDF\)](#)

[Taking Stock for Wildfire Recovery \(PDF, 1.5 MB\)](#)

[Wildfire Preparedness Resources & Additional Information](#)

[AgriShield: Risk Assessment and Mitigation Platform for Canadian Farmers](#)

PLAN FOR CONTINUOUS IMPROVEMENT

A business plan is a living document that you should revisit, revise and reference often as your business evolves over time.

When will you Assess, Plan, Implement, Review your Business Plan?

How will you measure your progress towards achieving your business goals over the past year and start to think about next year's goals?

BUSINESS PLAN SELF-ASSESSMENT

SELF-ASSESSMENT OF BUSINESS PLANNING NEEDS AND PRIORITIES

Instructions:

- 1) Read each statement below and select the 'traffic light' rating (**green**, **yellow**, **red**) that best applies to you and your business.
 - a. **Green** is an area of strength (e.g. I have a strong working knowledge of this and/or I feel extremely comfortable with my knowledge in this area, as it pertains to my business)
 - b. **Yellow** is an area of caution, where improvements can be made (e.g. I have done some work in this area and/or I feel comfortable with my level of knowledge in this area, but I see room for improvement)
 - c. **Red** is an area of weakness (e.g. I haven't done much work in this area and/or I feel I lack important knowledge in this area)
- 2) Once you have selected the most appropriate rating, next indicate for **yellow** and **red** statements whether this issue is a high, medium, or low priority for your business.

The self-assessment is based on the [Taking Stock Workbooks](#).

Key business planning needs considerations		"Traffic light" self-assessment rating (e.g. of level of understanding, skill, etc.)				For yellow and red rated statements: What priority do you give this area for you and your business?
Business Planning Area	Self-assessment reflection statement	Green (Strength)	Yellow (Caution)	Red (Weakness)	N/A	High, medium or low priority
Business Strategy	1. I have a good idea of what my business goals are.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	2. I have a good idea of what I would like my agriculture business to offer (e.g. what I would	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.

	like to grow/produce/make).					
	3. I can easily list the reasons why I am interested in running/starting an agriculture business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	4. I am confident that my business is compliant with all local bylaws and zoning regulations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Business Structure	5. I understand my business' legal structure and know it meets all of my business needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	6. I have an up-to-date, written business and lease agreements, all of the business owners understand the agreements and how they apply to the business.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Marketing Strategy	7. I know my unit cost of production and my product pricing options are informed by it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	8. I have a clear understanding of the range of marketing options that are available to me (e.g. retail/supply contracts, direct farm marketing, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	9. I have a clear, detailed understanding of the regulations that impact the marketing of my products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	10. I know who my customers and/or potential customers are and I follow relevant markets to know what products are valued by consumers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	11. I know what the different quality characteristics of my product are (i.e. what makes it unique, special or sought after by my customers) and how my business management practices might impact those characteristics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Human Resources	12. I understand the human resource needs of my business and have a human resource plan in place to obtain and retain employees that considers the labour, skills and training needs of my operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	13. I have a written job description for each family member, business partner and employee and each understands their responsibilities and our expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Financial Management and Production Economics	14. I have researched and/or developed projected costs and returns for my business and review these on a regular basis to ensure I am meeting my profitability targets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	15. I have set annual production goals and have a record keeping system in place to keep complete production accounts of my annual production.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	16. I am confident in my knowledge of the fixed and variable operating costs of my business, including costs of production.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	17. I have and maintain a detailed financial record keeping system and understand the financial status of my business at any given time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	18. My business is prepared for any food safety, certification (e.g. organic) or other regulatory inspection or quality assurance that applies to my business and/or my sector.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
	19. We consult with our tax advisors on a regular basis and constantly revise our plan to minimize tax implications over time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Social Responsibility	20. We consider the environmental impacts of our operation and adjust our farm management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.

	practices to minimize potential impacts.					
	21. I am a member of and/or aware of the farm, marketing and commodity organizations in my community/geographic area and the services they offer, such as liability insurance, cooperative purchasing and mentorship.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Risk Assessment	22. I have considered in detail various risks (e.g. production, market, financial, environmental, etc.) that might impact my business and have contingency plans in place, including insurance, to manage and/or mitigate them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Choose an item.
Other	23. Are there other areas not address above (e.g. transition/succession planning) that are a high or medium business planning and/or management priority for you and your business? If yes, please describe: Click here to enter text.				<input type="checkbox"/> Yes	<input type="checkbox"/> No

PLANNING FOR PROFIT SAMPLE TEMPLATES

Forming a clear financial picture of your operation is important for business planning. Please refer to the Planning for Profits Sample Templates.³

The templates are intended to help you with your business plan, to

- 1) Assess your current financial situation.
- 2) Proactively plan for business growth (including expansion or diversification).
- 3) Identify strengths and weaknesses in your operation.
- 4) Establish an action and continuous improvement plan.

Completing this will help prepare you to make the most efficient use of the B.C. Agri-Business Planning and the B.C. Indigenous Agriculture Development Programs with your farm business advisor/consultant.

The templates include the following:

- **Net worth statement** is a snapshot of a business at a particular point in time; essential for any proposal for financing that you prepare for presentation to a lending agency.
- **Cash flow statement** is a tool to manage cash to determine and record the probable flow of cash in and out of the business. Used to determine when an operating loan is necessary or when surplus cash is available for investment.
- **Income and expense statement** show revenues and expenses and the resulting net income after all expenses have been deducted from the revenues. Used to plan for business growth (including expansion or diversification).
- **Partial budget** is a planning tool to estimate the change in probable income and expenses that are likely to occur from making a change in a portion of your operation.
- **Production plan** is a tool to manage production activities during a production cycle for a crop, and/or by season or fiscal year. Essentially it determines and records the probable activities to ensure products (quantity and type) are available to market when they are needed.
- **Action Plan** is your roadmap to success. It is a collection of actions, which you have prioritized and committed to complete, to fulfill certain goals. It outlines who will do it and by when.

References

¹ Farm Management Canada's 2015 Ipsos Dollars and Sense National Study

² Heather Watson, Executive Director, Farm Management Canada

³ Source: Adapted from Province of British Columbia, Planning for Profit, Field Manual, Notes on Financial Management for Agricultural Producers, H.A. Scott July 1981

Appendix 13

Solution Selling For Agriculture

 croplife.com/management/solution-selling-for-agriculture/

Strategically-minded agronomy managers are looking for an improved sales process resulting in better customer experience, loyalty, and profits. Do these challenges ring true for you?

- Achieve meaningful differentiation from other retailers that creates a competitive advantage.
- Achieve more accountability for results from sales.
- Become more process driven vs. “working hard” to improve operations, management, and sales.

Several years ago, I was introduced to Solution Selling and learned selling could be a quality process with predictable outcomes like manufacturing. My selling performance improved as I learned this innovative approach to solving customer problems vs. selling products. In these columns, I'll introduce Solution Selling for Agriculture, the customized-for-ag version of the

world class sales performance system used by Microsoft and Dell Computer. We'll focus on key objectives of Solution Selling, and discuss how to implement this proven process in your retail business.

- Understand how customers buy, to align your selling activities.
- Distinguish between latent and active opportunities.
- Learn effective pre-call planning.
- Create interest/increase credibility with customers/prospects.
- Get growers to share high priority “pain” in their operation.
- Enlist consultative dialogue that differentiates your business.
- Qualify and disqualify opportunities based on objective criteria.
- Gain more control over sales cycles.
- Improve your win odds through effective closing techniques.
- Avoid no-decision with prospective buyers.

Solution Selling for Agriculture is the “Connect” portion of a business model I call Analyze, Plan, Connect, Review. Before diving into Solution Selling, I want to overview the components of the model. Next month, we’ll focus on “Create,” the first step in the Solution Selling process, and cover the “Develop,” “Prove,” “Close,” and “Implement” steps in subsequent columns. I’ll end next summer by detailing Analyze and Planning as these fit well at that time of year.

Analyze: Where Am I Today?

If you don’t know where you are going any road will take you there. Ag retailers typically need to focus more on analysis.

- Conduct a strategic assessment of how well you are aligned with customers. The Retailer Performance Monitor described last month will provide ideas in this area, and create a baseline for efforts to become more aligned with customer needs.
- It’s essential to measure your Share of Business with key customers. I recommend doing this on a category basis (Chemical, Fertilizer, Seed, Services) at the company and territory level, and for all key customers.
- Create a high-level diagnosis of the problems facing each of your key customers and potential prospects. In the Create and Develop steps of Solution Selling, we’ll detail getting customers and prospects to reveal business problems that deepen your relationship and widen your opportunities.
- Identify and quantify specific opportunities at your company level and for each key customer that drives your business. Do the same for prospects.

Following the analysis, plan how you will move your business forward. Planning without the analysis of where you are produces unpredictable results.

- Forecast/set goals for a sales territory/customer.
- Do pre-call planning.
- Identify potential pain and how it affects areas of a grower’s business.
- Use job aids to build pre-call plans, and strategies.

Connect

Sales people want to achieve their goals. The problem is they’re not sure how to get there. That’s what Connecting in Solution Selling is all about: following a pathway that’s proven in other industries. Solution Selling has three essential goals:

- Stimulate interest in your offering with prospects and growers who represent growth opportunities.

- Diagnose the customer's business problems and create a vision of a solution.
- Use job aids to manage, coach, and produce high performance sales results.

At the end of each Solution Selling cycle with a customer, we recommend conducting a review with your key customers (and prospects too). This review should focus on how well the plan developed during the Close and Implement steps of Solution Selling has solved the customer's business problems. It will provide you and your customer with an opportunity to confirm needs, and identify gaps in performance that — if not addressed — may lead to reduced share of business.

The diagram at left shows this process is wide and deep.

Philosophy: Solution Selling helps you understand customer needs and buying behavior. Better alignment with customers' and prospects' needs improves sales performance.

Map: A series of defined and measurable steps leading to a predictable beneficial result.

Job Aids: These are ag-specific templates, guidelines, and prompters that facilitate the right action, the right way at the right time.

Management System: Solution Selling can help managers transform the business from an internal operations focus to an external customer focus.

Implementation: Achieve a sustainable High Performance sales culture focused on customer needs.

Solution Selling for Agriculture drives predictable, customer-focused selling that accomplishes critical results.

- Increased share of business with high-potential customers.
- Improved customer retention from better alignment of retailer "solutions" to customer problems.
- Improved forecasting accuracy and pipeline management of opportunities.
- Effective territory management.
- Improved ability to develop and implement targeted selling campaigns.

Keogh is president of AgKnowlogy. AgKnowlogy is a group of agribusiness professionals, Certified Crop Advisors, software developers and analysts who created a suite of knowledge tools that improve customer loyalty and company profitability.

Appendix 14



Farm & Family Connections: *Communication in the Family*

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Communication, although essential, is not always easy. Individual differences in personality, communication styles and skills, and expectations all play a part in how well your family communicates. Sometimes you'll find it is best to let issues rest before trying to communicate. Other times, however, issues can't be allowed to rest, because lack of communication can interfere with daily living. After all, every family is a team, and this is particularly true of families with family farms. They must communicate effectively in order to manage their farms effectively.

Just as you, the manager of your family farm, must communicate and negotiate with employees, suppliers, processors/merchandisers, lenders, landlords, and providers of money or land in any given day, you must communicate with those family members directly or indirectly affected by farm-family issues and decisions. And it's equally important that they communicate with you. Successful families operate systematically, much as do successful farms.

Each family member plays different roles in the family and in the management of the family farm. Each of these roles carries with it different responsibilities and expectations. But sometimes one person sees his or her roles and responsibilities in one way, while others see them very differently. Different perceptions and expectations can lead to a great deal of confusion and frustration.

Communication allows for discussion and clarification of roles, responsibilities, and expectations that can lead to more effective, collaborative, and supportive relationships within the family. And, when the farm family is functioning effectively, the family-farm business functions more effectively.

Effective Communication

So, what is effective communication? The best way to answer that question is to break the concept down. Effective communication involves interpersonal skills, rapport with others, and active listening.

- **Interpersonal Skills**

Interpersonal skills enable us to interact with others. Effective interpersonal communication involves putting people at ease, respecting others' opinions and capabilities, and encouraging the sharing of feelings and perceptions.

- **Rapport**

To develop rapport with others is to develop a connection, a relationship, or an understanding with them. To do this, you should signal that you are open to the thoughts and opinions of others. You should express an interest in what others have to say in a friendly and open manner.

- **Active Listening**

Active listening encourages others to continue interacting. As an active listener, you can demonstrate your interest in what is being said using both verbal and nonverbal communication techniques.

- **Rephrasing**

- Rephrasing what you have heard is an effective technique. For example, a family member says, "It bothers me when you commit me to do something before asking if I am available." You can reply, "I understand what you are saying; it upsets you when I commit your time without checking with you first." Thus, you make sure you have clearly understood what you have heard, and you validate the speaker and his or her message.

- **Tone of Voice**

- Your tone of voice can determine the effect of your message. For example, if you try to communicate your anger or unhappiness, but do so in a light and jovial manner, your listener may miss your point. Your tone of voice should match the message you're trying to convey. Varying the pitch to demonstrate excitement or disappointment can help your listener to hear the intent of the message.

- **Nonverbal Cues**

- Just as what you say and how you say it are important to effective communication, nonverbal cues can also add to or detract from your message. For example, leaning toward the speaker, nodding, and smiling all convey interest in and understanding of what is being said. In contrast, looking away, shuffling your feet, looking at a watch or clock, or turning away when someone is speaking can be perceived as lack of interest in or uneasiness with the person or message.

Beyond Effective Communication

At times, even effective communication fails to achieve a desirable outcome. In those cases, outside help, guidance, or support can be helpful. You may seek support through your church, a community agency, or close friend. However, factors such as individual personality, upbringing, and culture can influence how comfortable families feel sharing private concerns with others. For families conditioned to believe that personal problems should remain private, seeking outside help may seem virtually impossible.

Sometimes, it can help to think about reaching out as strength. Consider how you would feel if someone reached out to you in need. Reaching out to others can be a real comfort and help when times are tough.

Sources & Resources

Pritchett, J. (2000). Thoughts on Relationship Management. Unpublished Paper.

Rausch, A. (1999). Communication and Stress: Enhancing Communication Skills. Purdue Cooperative Extension Service.

This publication is part of the Farm Business Management for the 21st Century series. Other publications in the series provide information about the evaluation of management skills, measuring and analyzing financial performance, and applying strategic management to the farm business. For the most current information about Farm Business Management for the 21st Century publications and other supporting materials, visit our Web site at <www.agecon.purdue.edu/ext/fbm21>.

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Appendix 15

Making Effective Presentations: Introduction

 content.moneyinstructor.com/1202/effective-presentations.html



The key to effective presentations lies in careful preparation. You need to know about your audience and their expectations; you need to identify your own objectives (do you intend to inform or persuade your audience?); you need to sequence your information in a logical way and you need to know the best ways to create and keep the audience's interest. You should also have your audio-visual aids ready and in the right sequence and should check that the equipment is in working order.



Your audience

Before you start to think about the content of your presentation, look at what you know about the audience. Ask yourself:

1. Why they are attending.
2. What they want to know.
3. How much information they have already.
4. What technical language they use or are familiar with.

If you were presenting information about road safety, your approach to an audience of parents would be quite different from your approach to an audience of policemen. Parents would be concerned primarily with protecting their children. They would be looking for advice

and information on safe practices. The police, on the other hand, would be far more interested in statistics, on looking for those responsible for road accidents, on the relationship between traffic regulations and safety.

Presentations for information

If you have information to give an audience, you must decide on the most logical sequence for the material. In your introduction you should state your name, your company or organization and your credentials and the purpose of your talk:

Good morning, ladies and gentlemen. My name is Mary Green and I'm a consultant with the Insight Corporation. I have ten year's experience in the field of X and the purpose of my talk today is give you the results of our recent research into Y.

It is important in the first stage of the presentation to give the audience some signposts and some approximate times. This is rather like having an agenda for a meeting; the audience knows what to expect and finds it easier to follow:

My presentation today will take about fifteen minutes and falls into three stages. First I will remind you briefly of the background to the research. Next I will spend about eight minutes outlining the results and I will conclude by talking for two or three minutes about the implications of these findings. There will be another ten minutes available at the end of my talk for you to ask questions.

As you reach the end of each stage of your presentation it is a good idea to signal this:
That concludes the background information...

and to briefly summarize the main points of that section,
and, as you can see, there are two main points to bear in mind: the effects of early research on current practices and the gaps in our knowledge that were identified.

You should then signal your move to the next stage:
Now I want to turn to the results of our recent research.

Presentations to Persuade

As with information presentations, you should give a clear introduction to yourself and your topic. However, in addition to organizing your talk in a logical fashion, you need to build up a convincing argument. You should concentrate on:

1. The **benefits** of your standpoint.
2. Compare these with the **disadvantages** of other approaches.
3. Lead up to the conclusion that what you offer is a better alternative.

In my presentation today I am going to show you how our new product can save you between 15% and 20% of your annual energy costs... Until now, comparable products have required a high initial outlay. In contrast our prices are 30% lower than our competitors'... From what you have seen today, I am sure you will agree that what we offer not only allows the biggest per annum savings at a considerably lower price than comparable products, but that it also comes with a cast-iron warranty and an excellent after sales package.

Capturing and keeping the audience's interest

To capture your audience's interest, you need a lively introduction with a 'hook'; that is to say a way of making the audience want to know more. Some ways of doing this are:

1. Identify a problem you know they would like solved.
2. "Trail" some new and interesting information that you are going to unveil.
3. Ask rhetorical questions (*questions to which you don't expect an answer: what exactly went wrong? where does that leave us? how can we interpret this?*).

Once you have the audience's attention, you should ensure you keep it by:

1. making clear, brief points
2. using simple visual aids to highlight specific points (these should be vivid and with only minimal information)
3. using humor if it is appropriate to your topic
4. summarizing key points.

Body Language

Remember that a message is conveyed not only by words but also by facial expression, posture, gestures. People say that as much of 75 percent of a message is conveyed by body language. If you are nervous, you will betray this in your body language, perhaps by pacing or repeating some gesture like touching your ear or fingering your clothing. All this can be distracting for your audience, so you might need to practice in front of a mirror or a video camera. Aim for a clear, steady gaze and look at individuals in the audience from time to time. Don't pace or fidget or tap your toe. Try to match your facial expressions to the tone of your subject. If you find you are becoming nervous, pause for a second and take a sip of water to give you time to recover.

Dealing with questions

Questions at the end of the presentation are of four main kinds:

1. Questions you can answer on the spot.
2. Questions that require further information you don't have with you.
3. Questions you wish to avoid.
4. Aggressive questions.

The first kind is no problem and you will deal with them as efficiently as you can. For the second kind, you should acknowledge the question as useful/important/interesting and offer to send the information on, or provide another source of information, if the questioner gives you an address after the presentation. For questions you wish to avoid, you should find some formula for politely declining to answer:

1. That's really too complicated an issue to discuss right now.
2. That's beyond my brief for today.
3. I'm not really the best person to deal with that question.

If someone in the audience is asking aggressive questions, then acknowledge their anger and politely decline to get involved:

I can see you are upset/angry/disturbed by this, but this not the time to engage in an argument.

Appendix 16

Agribusiness Ethics: Specifying the Terms of the Contract

Jeffrey Burkhardt

ABSTRACT. Agricultural production in the western world in our time is primarily agribusiness. As such, a business ethics approach can be extended to agricultural production. Given the nature of the agricultural production system, however, not only are general principles for business ethics applicable, but more specific obligations need to be generated. A social contract approach such as Donaldson's, with modifications, serves to provide both the general principles for the ethical practice of agribusiness, as well as more specific obligations for agents in the production system. An analysis of three cases is offered in order to highlight ethical issues particular to agribusiness, as well as to provide content for the principles which the social contract view regarding agribusiness can be seen to generate.

The ethical issues involved in agriculture are numerous and complex, as William Aiken has shown in his chapter on ethics in agriculture in Tom Regan's edited *Earthbound*,¹ and elsewhere.² And, Aiken has taken us a very long way toward a viable ethical analysis of agriculture through his careful "mapping" of the range of options with which we must contend in moral reflection on the economics, politics, and ecology of food production. The importance of these issues for present and future generations, as well as for the very survival of plant and

animal species, suggests that additional work in the ethics of agriculture is necessary. Furthermore, since agricultural practice in the Western world in our time is primarily a business activity, agricultural ethics can, and should, be conceived of in terms of the ethics of the *business* of agricultural production. My aim in this paper is to extend agricultural ethics into business ethics — and *vice versa*.

In one respect, agribusiness ethics is a simple extension of business ethics. Principles for the ethical practice of agribusiness are specific applications of principles for the ethical practice of business. In this regard, the justification of such principles follows justificatory procedures for principles for business ethics in general. However, in another respect, given the nature of the agribusiness system, there are special problems not addressable by "standard" business ethics. "Agribusiness," that is, is a somewhat misleading term, in so far as the agricultural production system is a complex network of different *kinds* of business from input suppliers to retailers, as well as labor, public sector researchers, etc. (see Figure 1). Thus, it is necessary to establish not only the broader ethical principles for agribusiness as business, but also more specific obligations for agribusinesses as agents in the *agricultural* production system.

In this paper, then, I present an analysis of a foundation for, and implications of, agribusiness ethics. In Section I, I explain why a social contract model of the sort that Donaldson³ has provided as a foundation for business ethics is well-suited — though with important modifications — to agribusiness ethics. In Section II, I discuss three current ethical issues that have

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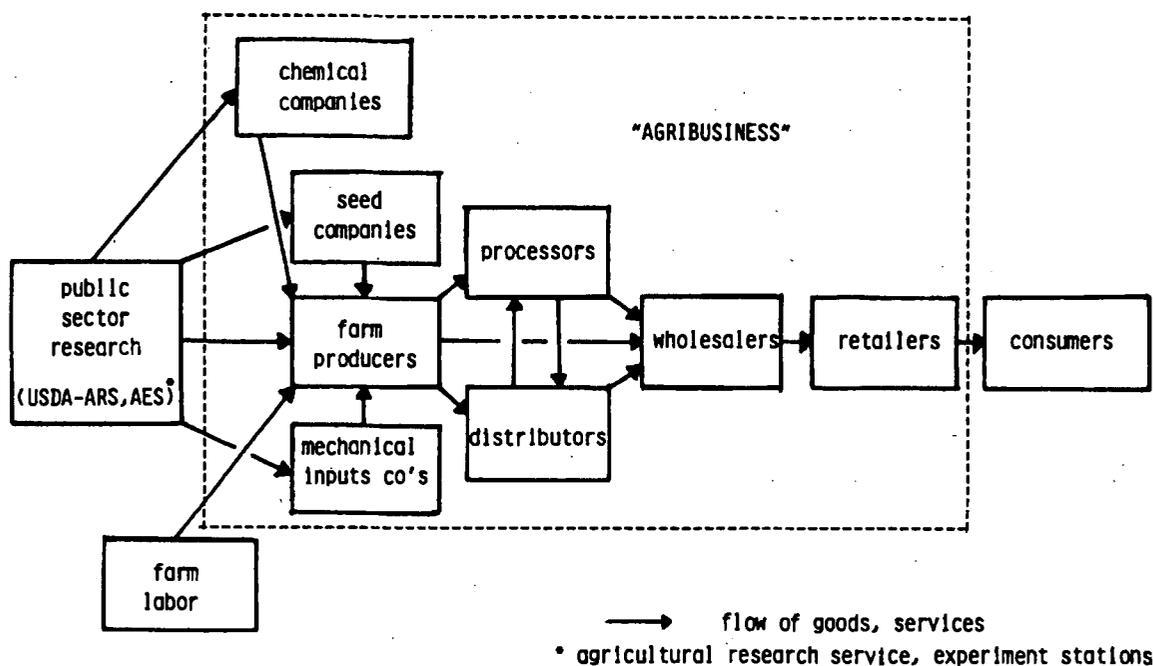


Fig. 1. A simplified model of the agricultural production system.

arisen in agricultural production: (1) the farm labor/mechanical inputs industry conflict; (2) the impact of acquisition of seed companies by chemical companies on farmers' moral obligations; and (3) the food quality problem. My analysis of these "case studies" sets the stage for the final section of the paper. In Section III, I draw out of the cases some principles for the ethical conduct of agribusiness, as foundations for specific obligations that particular "contracting" agents in agricultural production have toward each other, and toward society as a whole. My argument is that the cases show not only that a social contract for agribusiness requires respect for consumers, laborers, and the environment's "rights," but also that such a contract requires respect for other agribusinesses' rights as well.

There is one qualification. My primary focus is on plant — i.e., vegetable and grain — production. I do think that similar — though perhaps not identical — issues and solutions might arise in animal production as well.⁴ However, I want to avoid at this point the question as to how or even whether we should produce animals for food. My concern is with issues of the crop production system.

I. The social contract and agribusiness

Donaldson's model of the social contract between business and society is of course only one of the numerous versions of that view that have been offered in the literature, but I refer to it because it clearly articulates what the terms and conditions of such a contract would be. According to Donaldson, the overall form of the contract is best understood as "We, (the members of society) agree to do X, and you (the productive organization) agree to do Y."⁵ The mutual understanding is that X refers to something like:

- (1) Recognize the productive agent as a single agent, especially in the eyes of the law (but also as a moral agent).

and

- (2) Grant the productive agent the authority to own or use land and natural resources, and to hire employees.

Y refers to some set of or all of the following:

- (1) improve efficiency
- (2) stabilize levels of output

- (3) increase liability resources
- (4) minimize pollution
- (5) respect moral standards
- (6) respect political processes
- (7) decrease worker alienation
- (8) increase worker control over work environment
- (9) decrease dehumanization.⁶

Donaldson argues that a social contract so understood serves as a moral foundation for the social responsibilities of corporations considered as productive organizations. That is, the contract establishes the basis upon which the parties to the contract can *legitimately* claim that rights are violated, or obligations honored. Corporations who violate rights, or fail to act as they are obligated to act, then, must change their ways or lose their moral right to exist. This claim, however, invites an immediate objection. Since corporations usually don't make explicit agreements with society, the foundation for assessing moral obligations and rights cannot be contractual. To say so, in fact, is self-defeating. While society claims that corporations have obligations based on a social contract, all the corporation has to say is that it never made such a contract, and hence doesn't have any moral obligations to society. Hence, corporate moral obligations are thrown out the window.⁷

There are actually two parts to this objection. The first concerns the *hypothetical* nature of the social contract. Because of the fictional character of the social contract, philosophers have long questioned its force in justifying obligations.⁸ Either there are actual moral obligations, based on utility, natural rights, respect for persons, Aristotelian virtues, or some other justificatory theory, or there aren't; a *hypothetical* social contract can't justify *actual* obligations, and hence adds nothing to a normative argument.

Whatever the force of this objection in general, there remain some good reasons for employing the contractual model as a justificatory device for *business* ethical obligations, despite the hypothetical or fictional nature of the contract. In the first place, "business" and "corporations" and even "society" are all in some sense fictions. They are the historical

creations of individuals or groups of individuals, and continue to exist by virtue of the mutual recognition of their existence. This is to say that some "rules of recognition" in H. L. A. Hart's sense⁹ permit us to call some collection of people a "society" or a "business" or a "corporation" and so on, and treat those fictions as real, acting individuals.¹⁰ In the second place, on both the legal creation view and the legal recognition view of corporation,¹¹ society ratifies the existence of the corporation, by permitting limitations on liability for individuals incorporating, and recognizing corporate "acts." Some kind of contract is thus in place between corporations and society, even if no particular terms and conditions have been explicitly agreed upon.

But this leads to the second part of the objection. Even if we grant that the *existence* of the corporation is somehow contractually-based, the foundation for *moral* obligations or responsibilities that corporations have may still not be contractual. Corporations never entered into a *moral* contract with society. Without such a contract, there are no *moral* obligations or responsibilities. This objection, however, misses the point of the contractual analysis. We already suppose that some kind of contract exists between business and society. And, we suppose that members of societies have moral obligations and responsibilities to other members of society. What moral obligations we wish to argue that corporations have, then, over and above legal obligations, are made explicit by showing that they derive from or can be understood in terms of a contract. In a sense, this is the Rawlsian view¹² that the contract might only be drawing out in more explicit terms the obligations that are already "there" by virtue of our (individuals', corporate persons', interest groups') participation in a society. Corporations have obligations to society, that is, and to show that these obligations are a part of an implicit agreement that they have with society is only to make those obligations more definite.

Even if the social contract view serves generally to ground the rights and obligations that business and society have toward each other, there is one further problem. Particular

businesses or individual corporations are not business in general. What obligations do specific businesses have? We might, perhaps, derive these, deductively, from the more general "agreed-to" principles. However, when we consider that the operations of particular firms vary considerably, that particular firms serve different markets, and that in some cases, particular businesses don't deal with any broad section of society, a simple application of these general terms and principles to particular cases may not fully address nor solve ethical problems that arise in specific instances.

In one respect, this difficulty is just an instance of the problem of applying general principles to particular cases. In another respect, however, it is an instance of what we might call the "contractual domain" problem. Certainly there are moral obligations which each agent in a production system has to society or, as Donaldson puts it, to consumers and labor.¹³ Given the differences in the kinds of social relations that individual firms or kinds of firms have, it may be not only appropriate but necessary to narrow the terms of the contract to identify particular ethical problem areas which might exist for a particular firm or sector of an industry. Donaldson suggests something close to this in his general principle, "productive organizations ... should avoid any practice which systematically worsens the situation of a *given group* in society."¹⁴ A more direct way of stating the point is that agents in a production system have obligations to those with whom they deal, that is, to those with whom they have concrete, frequent interactions. Acting on some of *these* obligations may fulfill obligations to society at large; some of these obligations may, however, be of only indirect concern or consequence to any broader section of society. They are, nonetheless, part of the moral obligations that particular agents have to society, by being obligations that agents have to other agents within society. An important point follows from this: Some social-contractual obligations that businesses have are obligations to other businesses. I will offer an example of this below.

With this in mind, I will briefly explain why the modified contract view is well-suited to the

agribusiness system. There are two main reasons.

(a) First, as was stated above, agricultural production is currently a business activity, governed by principles of profit-making, cost accounting, economies of scale, marketing, distribution and so forth. How *those* principles get applied is of course dictated by whether the business is a farm, a manufacturing firm, a vegetable processing company, supermarket, bakery, etc. If there are contractually justifiable principles for business moral responsibility at all, then they are also applicable to the agricultural production system. Some are perhaps *more* applicable to agribusinesses than to other types of businesses, e.g., environmental responsibilities or labor-relations obligations.

(b) Second, since food production is so important to us, historically at least, agribusinesses have been given a somewhat freer hand relative to environmental and labor issues than have certain other kinds of businesses. Resource depletion and misuse have not been regulated in agriculture the way that they have in, say, mining. And labor relations in agriculture have not been scrutinized by the federal and state governments to the extent that they have been in auto manufacturing. Of course, there are political reasons for this: farm and ranch lobbies have been among the most powerful in both the Congress and state legislatures. However, there are also, as Aiken has suggested, socio-economic reasons: consumers have been more than willing to tolerate ethically questionable practices by agribusinesses in return for cheap and easily obtainable food.¹⁵

These considerations suggest that the agricultural production system is amenable to a social contract evaluation. A contract has already been set up between consumers and the agricultural production establishment. They provide food, we look the other way concerning unethical practices. That some of the negative results of the general public's policy of *laissez faire* are now manifest suggests that this prior contract is and should be in the process of being renegotiated. This is, the moral obligations of agents in the agribusiness system need to be better articulated, since it is clear that the policy of *laissez-faire* toward the system and toward particular

agents in the system has produced some disastrous and near-disastrous social ills. There may be parallel arguments regarding other industries; the point is that the analysis does work particularly well in this case.

There is one further consideration. Agribusiness as a whole has a contract with society, and that contract should be better articulated if altered. Given the nature of the agricultural production system, to better articulate or alter the terms and conditions of that contract requires that we utilize our contractual analysis to target individual businesses or kinds of businesses as agents responsible for and obligated to remedy social ills produced by "agribusiness." The contract that that particular agent or set of agents has with society or some part of it, that is, is what should be negotiated. Other businesses or kinds of businesses in agricultural production should be left alone. The modifications I made in Donaldson's model permit this specification of domain of obligations.

From a metaethical point of view, there may be no way to defend *completely* the contractual model against its critics. This, however, is not my aim. Rather, I wish to suggest that with the modifications I have made in the model, a contractual view allows us to show how businesses' actions toward consumers, labor, and other businesses can be evaluated. With my modifications the model also allows us to show how some actions may violate agreements that businesses make with parties with whom they interact. In this respect, the model is not only a practical device for drawing out obligations and responsibilities, but also points to that fundamental feature of our business society: our political economy is a complex network of interrelated agents, and the smooth and efficient production of goods and services depends upon respect for a clear division of labor and assignment of roles.¹⁶

II. Ethical issues and the agribusiness "community"

There are three currently existing and/or developing situations in US agriculture which can be seen to highlight the point I have been

making about the moral obligations of particular actors in the agricultural production system. Although an extended case analysis of each would strengthen the argument, in this section I wish only to note a few of the ethical issues involved in each case as a way of suggesting the applicability of the model presented above, as well as the soundness of the principles I will draw out of this analysis. Again, the three cases are (a) Farm labor vs. the Mechanical Inputs industry; (b) Seed production by Chemical companies vs. Farmer responsibilities; and (c) Processor interests vs. Consumer and Farmer rights and responsibilities. Again, my focus in (a) and (c) is on grain and vegetable production and processing.

(a) A recent lawsuit in California¹⁷ raises a number of questions about the respective rights and/or roles of farm labor, farmers, and mechanical inputs companies. The main issue in the case is the legitimacy of public sector institutions researching and developing products or procedures which benefit only one part of society while harming another. Specifically, The California Rural Legal Assistance (CRLA) project, on behalf of farm workers and small farmers, challenged the practice of plant (specifically, tomato) improvement programs at the University of California (Davis) which develop varieties which are mechanically harvestable, and hence suited only to large mechanized farms. Since it is in the interest of labor and small farmers to have plants developed which are more easily *hand* harvestable (e.g., tomatoes setting fruit higher on the plant), and since there are a great many properties of mechanically-harvestable plants which are inimical to hand picking (e.g., having the stem of a vegetable more firmly attached so as to prevent the vegetable from dropping off before harvesting), to have public plant breeders develop the latter kinds of varieties to the exclusion of the former constitutes a violation of the principle that public facilities are to benefit "the public." Indeed, farm labor in California, Florida, migrant workers throughout the country, and small, family farmers, are a large sector of the public.¹⁸ There are a number of traits in plants which may or may not be relevant to the conflicting demands here, for example, that the

plants set fruit all at the same time. In regard to mechanical harvesting, however, it is clear that there is a direct conflict over characteristics that are seen as valuable in plants.

Besides the question of the legality of such research in the public sector, one important issue that arises in regard to this case is that of labor/industry relations. Unlike other kinds of labor/management or labor/industry conflicts, where this conflict gets "resolved" is in a third party's enterprise, namely, the farmer's farm. Presumably, farmers decide how to produce, whether capital-intensively or labor-intensively, on economic grounds. If plant varieties are available which are tailored to a more capital-intensive style of production, the farmer *may* choose capital-intensive production. He *may* choose hand-harvested production, if there are varieties which make that an equally productive possibility in terms of yield. If, however, there are no *higher*-yielding hand-harvestable varieties, or are there no varieties which are *equally* as high-yielding which are both mechanically- or hand-harvestable, the farmer has no choice but to utilize capital-intensive production. In other words, the farmer can't exercise a choice about the relative cost-efficiency of labor or machines, since there is no real option but to use machines. Nor, for that matter, could the farmer "mix" strategies, having one plot mechanically harvestable and others hand-harvested, depending on whether he or she wants to produce fresh-market or processing tomatoes, say. Thus, farmers are put in a position of having to employ mechanical harvesting procedures. Two points follow from this: (a) smaller farmers, who perhaps can't afford the expensive machinery, cannot compete with the higher-yielding, large, mechanized farms. In fact, small vegetable farms have gone out of business at an alarming rate. And since small farmers had been the primary employers of vegetable pickers, employment opportunities for pickers have rapidly declined.¹⁹ (b) Even a large farm has no choice but to employ mechanical harvesting techniques. Thus, labor has a similar foreclosure of opportunities there. All the while, the mechanical inputs companies are developing larger, more efficient harvesters, combines, and

tractors, the net effect of which is to futher industrialize the farm sector, leaving open no or very small possibilities for profitable small farms or at least a stable source of farm employment opportunities.

The point of this, independent of the California suit, is that a situation has arisen here in which (1) there are conflicting interests between labor and small farmers, and the mechanical inputs industry; (2) there is no possibility for direct negotiation between farm labor and the inputs industry except in so far as labor can try to "negotiate" with farmers to employ them at the expense of higher yields; (3) given available options, farmers must use mechanically harvestable varieties which are not as efficiently hand harvestable, even though there may be varieties which exist or could be developed which would be equally high-yielding and cost-efficient whether harvested by labor or by machine; and (4) a group of people, and perhaps, the public at large, is harmed by this situation.

It may be argued that the reduction in the number of small farms, and the decrease in employment opportunities for vegetable pickers, are only unfortunate consequences of the operation of the market. Research institutions only develop varieties for which there is some demand; mechanical inputs businesses supply only those products for which a market exists; and farmers choose the most economically sound production techniques. If consumers receive produce at reasonable prices, that labor and small farmers are harmed in the process is unfortunate, but necessary. This, however, is where a contractual agreement needs to be invoked. While it is certainly in consumers' interests to have cheap and readily obtainable food, the increased mechanization of vegetable farms produces some social ills. Certainly pressure in research institutions contributes to these. But at least some of these social ills can be traced to the mechanical inputs companies' not making available harvesters which would be compatible with smaller-scale, even partially hand-harvested, farms. If it could be shown that there would be demand by small farmers for less costly, efficient harvesters, it would then be morally incumbent upon mechanical inputs companies

to produce them. Not doing so would violate the agreement that society has with the mechanical inputs sector of agribusiness to provide those necessary products without harming a large sector of the public. And, given the number of small farms that have disappeared as a result of increased pressure to mechanize, it would seem that that demand *did* exist, even if it does not now. Yet, even given the fact that small farms continue to decline in number, *some* demand does exist. Hence, mechanical inputs companies would have *some* obligation to produce these smaller machines.

But what of labor? Perhaps the availability of smaller harvesters might allow for a mix of capital-intensive and labor-intensive strategies mentioned above. In such a case, farmers ought to employ such a mix, since not doing so harms labor with no economic gain to the farmer from this harm. More directly, the mechanical inputs industry *and* farmers should consider the interests of labor when researching, developing, marketing and employing farm machinery. This is not to say that such machinery should ultimately not be employed. It is instead to say that the impact of mechanization on farm labor — as on small farmers — should be considered by each agent, as a part of its contractual obligations to those other agents — and to society. This may even imply an obligation to contribute toward retraining of farm labor in some cases.

In sum, the following obligations are involved in this case: (1) public sector plant breeders should continue to breed hand-harvestable varieties — or perhaps varieties equally compatible with both types of harvesting. (2) The mechanical inputs sector should take steps to refrain from any direct pressure on farmers and research institutions. (3) The mechanical inputs sector should actively support research to develop alternative, equally efficient forms of harvesters which would be compatible with a more labor-intensive farming system. (4) Farmers should utilize vegetable pickers wherever equally cost-efficient. These are direct implications of the contract that these agents in the system have not only with the public at large, but with other agents in the system who are harmed as a direct and foreseeable result of their actions.

(b) one of the major criticisms leveled against agribusiness is that farmers have increasingly turned to chemical nutrients and environmentally-unsound herbicides/pesticides. Historically, agribusiness has defended the use of *some* chemicals (DDT to the contrary) on the grounds that cheap food requires them: chemicals speed up the production process and increase yields.²⁰ Now, what is interesting is that although the Farm Bureau has recently come out against the excessive use of chemical fertilizers and herbicides on the grounds that they are increasing in cost,²¹ farmers may increasingly find themselves dependent on “new and improved” chemicals. This is because: (1) private seed companies are currently developing varieties of plants which would be tolerant to particular chemicals. That is, the corn or wheat or tomato plants would not wilt or die when the field is applied with a particular kind of herbicide.²² And, (2) Public sector (University and USDA) seed development has decreased, or at least moved from the development of “finished” (immediately usable) varieties to “germ plasm enhancement”.²³ There is every likelihood that if the seed companies are successful, farmers will be forced to use and *purchase* “packages” of seed and chemicals (since publically-developed finished seed would not be available). Not only would chemical use not decrease, but farmers would have *no choice* for certain crops but to continue or increase chemical applications.

There are a number of issues which arise in this case, not the least of which have to do with the fact that (1) farmers' share of the value added in most agricultural products is already relatively small;²⁴ and (2) purchased inputs (including seed) have significantly increased in the farm sector over the last 50 years.²⁵ These are themselves enough to justify the Farm Bureau's call for a reduction in the use of chemicals in favor of more economical farming practices. The more important issue in the present context is, however, that through the actions of the seed companies farmers are put in the position where even if they were to *desire* to act in a socially or environmentally-responsible fashion, they may not be able to. I make no claims here about whether farming businesses

would so desire; rather, the situation may be arising where it wouldn't matter if they did.

But this is only half the story. Seed companies, in and of themselves, have no *particular* interest in chemically-dependent seeds. In fact, since the passage of the Plant Variety Protection Act (PVPA) in 1970, seed companies can patent plant varieties, so that high-yielding varieties they develop can return to them a decent profit. Thus, while their interest is certainly in selling their patented seed, it is not necessarily in selling only chemically dependent seed. However, if we consider the fact that since the mid-70's, major seed companies have been acquired by major multinational chemical companies, that picture begins to change (see Table I). Chemical companies are now, in effect, redirecting research and development within the seed companies toward the chemically-dependent varieties.²⁶

There are some technical issues in plant

breeding or plant improvement concerning the possibility that chemically-tolerant plants can in fact be developed, which I will not pursue here. It is certainly the case that agrichemical companies *believe* that they can be, and are willing to invest heavily in both traditional plant improvement programs and in "genetic engineering" labs and firms with ostensibly the same goal. The ethical issue in this case, is that even if no *particular* firm were to gain a monopoly over the seed/chemical market, the collective effect of the purchase of seed companies and the redirection of research and development efforts is that socially responsible action by *both* farmer and seed company is undermined. (Presumably, seed companies could be developing "naturally" higher-yielding, pest-resistant, better tasting, nutritionally superior varieties.)

There is a utilitarian argument to the effect that business mergers, buyouts, and perhaps

TABLE I
Some chemical companies and seed subsidiaries

company	seed company	biotech? ^a	company	seed company	biotech?
ARCO	Desert Seed Co.	yes	Pfizer	Trojan Seed Co Jordan Wholesale Clemens Seed Warwick Seeds	yes
Celanese	Celpril Moran Seeds Harris Seed Co.	yes	Sandoz	Northrup-King National N-K McNair Seeds Gallatin Valley Rogers Brothers Ladner Beta	yes
Ciba-Geigy	Ciba-Geigy Seeds Funk Seeds Louisiana Seeds	yes	Shell-Olin	North American Plant Breeders Nickerson-Zwaan Agripro Tekseed Hybrid	yes
FMC Corp.	Seed Research Assoc.	yes	Upjohn	Asgrow Seeds Associated Seeds	yes
Monsanto	Farmers Hybrid Co. Hybridtech Jacob Hartz Seed	yes			
Occidental Petroleum	Ring Around Products Excel Hybrid Missouri Seeds Moss Seeds	yes			

^a indicates either in house genetic engineering lab or venture capital interest in a biotech firm.

Source: Jack Kloppenburg, Jr., 'The Social Impacts of Biogenetic Technology In Agriculture: Past and Future,' in G. M. Berardi and C. C. Geisler, eds., *The Social Consequences and Challenges of the New Agricultural Technologies* (Boulder: Westview Press, 1984).

even diversification, are unjustifiable practices.²⁷ The effect of these moves is to raise prices, to restrict competition, and to arbitrarily alter distributional arrangements. Establishing that any one of these has occurred is enough to show that there is a decrease in social utility from the practices. The problem is that in some cases, economies of scale, or better competition or even lower prices can result from the merger, buyout, diversification, especially over the long run. The real problem with utilitarian criticisms of these actions, then, is that we must wait until the long run to evaluate net social utility resulting from them; and in the present case, the long run may be too late. Increased chemical dependency in farming will have already taken its environmental toll.

A contractual argument provides the basis for a criticism of chemical companies' actions in the present case. Business actions such as these arbitrarily change the terms of the contract that the business or set of businesses have with society, without public notice or ratification. And, not only is the public harmed as a result of their actions — environmentally-unsound farming practices — but farmers desiring environmentally-sound agriculture are harmed as well. One must conclude that either the diversification/buyout, or at least the redirection of research efforts toward increased chemical use, violate the contract that agri-chemical companies have with society.

(c) The final case involves the question of "food quality," and the kinds of control food processors exercise over both farm producers and consumers concerning nutrition and taste in vegetables and grains. Despite claims to the contrary, it is currently the case that flavor and protein content are not characteristics which processors, both vegetable canners and flour millers, desire, even though high-yield varieties exist which are more flavorful and of better nutritional quality than those now produced.²⁸ It is not that processors don't *want* qualitatively superior "raw materials," it is just that no (or very small) premiums are paid for flavor or high protein content in grains or for natural sugars in vegetables. Presumably, this is because the nutritional quality or flavor or even color of

processed foods can be maintained by cheaper chemical additives (not all artificial).

There is a vast literature which discusses the chemical additive/nutritional quality issues, so I will not give much more technical detail.²⁹ Two points will serve to clarify how the contractual model can provide a basis for moral obligations in this area. First, it appears that the processing sector of agribusiness increasingly constrains farm producers from producing anything other than commodities with a limited set of desirable characteristics. Even if the farmer took it as a moral obligation to society/consumers to grow more nutritionally adequate or aesthetically pleasing varieties of vegetables, fulfilling this would be frustrated by the demands of the processors. Obviously, in the case of fresh-market vegetables, this interference would not exist, although *distributors* of vegetables, especially tomatoes, might demand (aesthetically unpleasing) thick skins and dry "meat" for packing/delivery efficiency.³⁰ The point is that moral obligations of farm producers to consumers are undermined by the processing sector; hence, it is encumbant upon the processor to allow farmers greater latitude in the exercise of decisions regarding *their* social responsibilities than presently exists.

Secondly, the contract which exists between the consuming public and processors may be the basis for a claim that processors should take more care in the additives they introduce into processed foods. Currently, all consumers can do relative to certain substances, is "avoid." A FDA study shows that 54% of all food shoppers read labels, and that 70% of those who do, do so in order to avoid sugar or salt or particular preservatives/chemicals.³¹ Evidence like this suggests that an industry-wide move to reduce certain *kinds* of substances in processed foods would not only be favored by consumers, but, would be a moral obligation for the processing sector of the highest order. The reciprocal basis of this obligation lies in the fact that processing accounts for over 50%, and in some cases up to 75% of the value-added for a particular grocery-shelf item.³² Certainly processors are benefitting from their place in the system. Society's interest demands that processors find alternative means

of cooking and preserving and flavoring fruit, vegetable, and grain items. Interestingly, honoring this obligation might be concomitant with a more responsible course of action toward farmers.

It may seem from the above that I have been defending farmers, or the farming sector of the agricultural production system, against public criticism. In a sense I am, since despite abuses by farmers of land, water resources, and labor, there is a certain element of necessity in the farm sector's choices in these situations. One might, of course, make the claim that all social ills in agribusiness are the direct result of *farming*, which is true to the extent that without farming, environmentally and socially irresponsible actions by *agribusiness* wouldn't be undertaken. My argument is, however, that while farmers do certainly have obligations to society/consumers, labor, and also to the inputs- and processing sectors of the agricultural economy, many social ills are not the direct responsibility of farmers, or of the agribusiness system as a whole, but of particular, identifiable agents in the system.

In sum, then, I have tried to indicate how conflicting interests — and, to borrow from Margolis,³³ some conflicts of interest — exist within the agribusiness community, and that by understanding particular sectors of the business as contracting agents we can specify particular obligations emanating from relationships within the industry. In the final analysis, by so specifying those obligations and/or rights, broader moral obligations of the agribusiness community can better be honored. In the final section of this paper, I will outline some principles which the contract view of the obligations of the agribusiness system can be seen to generate.

III. Some ethical principles for agribusiness

Donaldson's contract model provides the guidelines for establishing general principles for socially responsible business. The preceding analysis suggests that the following principles can be derived from a contractual evaluation of agribusiness. There are, of course, additional prin-

ciples that can be derived from an ethical analysis of the practice of agribusiness. Whatever others there might be would, however, in all probability be consistent with, or derivations from, these.

- (1) Agribusinesses should respect as persons each agent in the agricultural production/consumption system.

There exists for agriculture as for any enterprise in modern society a *prima facie* obligation to do no harm. This is the first imperative of a contract between society and business, and implies mutual respect. French has shown³⁴ how corporations can be likened to persons, with the implication that as with any person, there is a minimum of respect due "him" or "her"; the other side of this is of course that the corporate person should respect other persons, both "natural" and corporate. Agribusiness corporations should not harm persons, and this means consumers, laborers, and other corporate persons as well (including public institutions).

- (2) Agribusinesses should not engage in actions which systematically undermine the obligations of other agents in the production system.

This principle requires explanation. In a generally competitive economy, *any* action for the purpose of gaining a competitive edge will "systematically undermine" the place of other agents in the market. This is true whether the competitor intends the other's demise, or only a better product to deliver to the market. There are, however, some actions which do not attempt to drive a competitor or competitors from the market, but instead which attempt to undermine the range of choices of another agent, by non-competitive means. There are any number of cases where it can be shown that the purpose of a particular business acquisition was not to better a firm's profit situation, but to close down the acquired firm's operations.³⁵ The moral equivalent of this is the case in which one company or set of companies acquire another, in order to redirect the latter's enterprise in morally-objectionable ways. This violates both the contract that competitors have with one another to engage in "healthy competition", as well as the contract that businesses have with

society to do no foreseeable harm.

- (3) Agribusiness enterprises should not engage in actions — either direct or indirect — which are environmentally damaging and ecologically unsound.

A proviso must be added to this principle. Since *all* agriculture is a direct assault on resources such as land and water and plant and animal material, *some* technologies and some environmentally damaging activities may be necessary. However, better risk-assessment can be employed to reduce this damage to a reasonable minimum.³⁶ Certainly, as Hans Jonas argues,³⁷ some technologies can be eliminated or transformed in the interest of an environmentally more responsible agriculture. This serves to generate the next principle:

- (4) Alternative agricultural production processes and technologies should be considered when a research, farming, processing or distribution system is established, "modernized," or reorganized.

This principle derives from the first three, and is clear in the cases I discussed. Massive mechanization may be the least environmentally risky and most socially beneficial farm procedure to employ. However, to gauge all research and production to mechanization without *considering* risks and/or harms to persons violates the moral obligations of agribusinesses, from seed researchers to grocery stores.

- (5) Agribusinesses should make every effort to upgrade the quality of food which is produced.

Quality is a difficult thing to measure in food-stuffs; still, with the recognition that more nutritious and better-tasting varieties of fruits and vegetables and grains exist, are not being utilized, and that in some cases consumers would be willing to pay for these characteristics, agribusiness should respond accordingly. Perhaps this principle should be in the negative, as: *Agribusiness should NOT discount food quality solely in the interest of cost, yield or ease of processing.* Adhering to this rendition of the principle would probably produce the same result.

These principles, it seems to me, emerge out of the cases I have discussed, and are the

basis for the claims I have made about the obligations of particular agents in the food (again, plant) production system. They ground (1) the obligation that the mechanical inputs industry has to refrain from activities toward the public sector research institution and toward the farmer which eventuate in harm to labor — and perhaps to the public; (2) the obligation that agrichemical companies have to refrain from those actions which redirect seed companies into only particular kinds of research, which ultimately ties farm production more closely to the use of (potentially-harmful) chemicals; and (3) the obligation that processors have to improve nutrition and aesthetic quality by permitting (and even paying for) those characteristics in grains and vegetables delivered by the farmer. The cases I have discussed are of course only a small sample of situations which arise in agribusiness which have moral or ethical dimensions. However, by seeing how the principles I have generated both fall out of more general contractual obligations that agribusiness have, as well as derive from the characteristics of particular agents' interactions in the agricultural production system, we can begin to provide a more complete ethic for agribusiness.

There is one further principle, or perhaps "meta-principle", which a contractual analysis of the obligations of agribusiness, and business in general, can be seen to generate:

- (6) Agents in the production system are obligated to inform society, through appropriate means, of intended changes in the structure of the production system.

Any industry undergoes changes in the pattern of its organization from time to time. Businesses come and go, markets evolve, demands shift. However, the very foundation of a social contract between business and society lies in the negotiations, settled or continuing, which set the terms of the contract: The obligations, rights, responsibilities of the parties thereto. In the contract between business and society, of fundamental importance in recognizing corporate entities as agents and extending rights to them is the role in society's economic processes that a particular agent is to assume. To change that role without proper notice constitutes an

unfair "breach," and grounds for moral — if not legal — reproach. There currently exist, in agricultural production, trends, moves by agribusinesses, responses by others, which may result in important structural changes in roles; roles, that is, that are basic to our social contract with that system and with every agent within it. Thus it is that a careful eye should be cast toward a renegotiation of the contract, recognizing that violations of the contract to produce the "stuff of life" are of the utmost importance; indeed, violating these obligations may be even greater reason for a corporation's losing its moral right to exist.

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Notes

- ¹ New York: Random House, 1984.
- ² William Aiken, 'Value Conflicts in Agriculture,' *Agriculture and Human Values* I, Number 1 (Winter 1984).
- ³ Thomas Donaldson, *Corporations and Morality* (Englewood Cliffs, NJ: Prentice-Hall, 1982), pp. 36–57.
- ⁴ For a discussion of the issues involved in animal food production, see Peter Singer, 'Animal Liberation,' *New York Review of Books* (1975), and selected essays in Tom Regan, *All That Dwell Therein* (Berkeley: University of California Press, 1982).
- ⁵ Donaldson, *op. cit.*, pp. 42–43.
- ⁶ I have paraphrased here what Donaldson arrives at through more careful and extensive analysis of the meaning of these particular items for corporate actions.
- ⁷ Donaldson makes mention of this, see *op. cit.*, p. 41.

⁸ E. g., David Hume, *An Enquiry Concerning the Principles of Morals*, Appendix III, 'Some Further Considerations with Regard to Justice,' in Hume, *Selections*, edited by C. W. Hendel (New York: Scribners, 1955).

⁹ H. L. A. Hart, *The Concept of Law* (Oxford: Oxford University Press, 1961), pp. 97ff.

¹⁰ Cf. Peter French, 'Corporate Moral Agency' in Bowie and Beauchamp, eds., *Ethical Theory and Business*, first edition (Englewood Cliffs, NJ: Prentice-Hall, 1979).

¹¹ For a discussion of the differences between these two views over specific moral or social responsibilities of corporations, see Richard DeGeorge, *Business Ethics* (New York: Macmillan, 1982). I believe that DeGeorge is mistaken: even on the legal-recognition view, society permits only *some* kinds of activities by corporations. That is, even if their primary "right" is to "do their own thing," this right must be consistent with society's interests in not having harms of certain kinds exist as a result of corporate actions.

¹² See John Rawls, *A Theory of Justice* (Boston: Harvard University Press, 1971), pp. 21, 577ff.

¹³ Donaldson, *op. cit.*, p. 54.

¹⁴ *Ibid.*, p. 53, my emphasis.

¹⁵ Aiken, 'Ethical Issues in Agriculture,' (see Note 2), p. 248.

¹⁶ On this point, see for example, George Cabot Lodge, 'Managerial Implications of Ideological Change,' in Walton, ed., *The Ethics of Corporate Conduct* (Englewood Cliffs, NJ: Prentice-Hall, 1977).

¹⁷ *CRLA v. The Regents of The University of California*. For further discussion of this case, see *Science* 208, Number 9 (May 1980), and *The Chronicle of Higher Education* (May 16, 1984).

¹⁸ The size of this group should not be overestimated. Still, total farm employment, as of 1973, was down from 13 million (1915) to a little over 5 million. Of this, about 1 million is considered "hired labor," while family (small) farm workers number 3 million. These are, of course, "official" figures (1971–1973, *Agricultural Statistics*, USDA, 1981), and would not necessarily reflect untold numbers of unregistered aliens in the farm labor force.

¹⁹ Lawrence Busch, J. Lew Silver, et. al., *The Relationship of Public Agricultural R & D to Selected Changes in the Farm Sector*. Report to the National Science Foundation (June 1984), p. 33.

²⁰ Aiken, *op. cit.*, p. 255.

²¹ Statement of American Farm Bureau Federation to Subcommittee on Agricultural Research and General Legislation of the Senate, Nutrition and Forestry Committee, June 14, 1984. AFBF, Washington, D.C. 20024.

²² See Pat Roy Mooney, *Seeds of the Earth* (Ottawa:

Canadian Council for International Cooperation, 1979), pp. 55ff.

²³ See L. J. (Bees) Butler, 'Issues and Perspectives in Plant Breeding,' in Lawrence Busch and William Lacy, eds., *Food Security in the United States* (Boulder: Westview Press, 1984).

²⁴ This is especially true for *processed* foods from crops, where the average runs less than 20%, although fresh market produce the average is still well below 40%. Animal products' average returns to farmers is somewhat higher. See C. P. Timmer and M. C. Nesheim, 'Nutrition, Product Quality, and Safety,' Chapter 4 in *Consensus and Conflict in U.S. Agriculture*, ed. by B. W. Gardner and J. W. Richardson (College Station, TX: Agriculture Council of America, 1979).

²⁵ Economic Indicators of the Farm Sector: Production and Efficiency Statistics, 1980. USDA Statistical Bulletin 679.

²⁶ See Mooney, *op. cit.*, pp. 55ff.

²⁷ For a "standard" utilitarian-efficiency argument to this effect, see Manuel Velasquez, *Business Ethics* (Englewood Cliffs, NJ: Prentice-Hall, 1982), pp. 151ff. For a more extended treatment, see John M. Blair, *Economic Concentration* (New York: Harcourt, Brace, Jovanovich, 1972).

²⁸ *Genetic Vulnerability of Major Crops*, U.S. National Academy of Sciences, 1972. Quoted in Mooney, *Seeds of the Earth*, pp. 83-84.

²⁹ Timmer and Nesheim (see Note 25) give a good treatment of these issues, as do Dietrich Knorr and Katherin L. Clancy, 'Safety Aspects of Processed Foods,' in Busch and Lacy, *op. cit.*

³⁰ Hightower, *Hard Tomatoes, Hard Times* (Cambridge, MA: Schenkman, 1973).

³¹ J. T. Heibach and R. C. Stokes, *FDA 1978 Consumer Food Labeling Survey* (USDHEW, FDA Bureau of Foods, 1979). Cited in J. D. Gussow, 'Food Security in the United States: A Nutritionist's Viewpoint,' in Busch and Lacy, *op. cit.*

³² For wheat, see *Wheat Situation* Vols. 227-266; for other crops, see *Vegetable Situation Report*. Both are publications of USDA-Economic Research Service.

³³ Joseph Margolis, 'Conflict of Interest and Conflicting Interests,' in T. L. Beauchamp and N. E. Bowie, *op. cit.*

³⁴ Peter A. French, 'Corporate Moral Agency,' in Bowie and Beauchamp, *op. cit.*

³⁵ See, for example, Blair, *Economic Concentration* (Note 28 above), pp. 257-284.

³⁶ See Paul Thompson, 'Risk, Ethics and Agriculture,' *Journal of Environmental Systems* 13, Number 2 (1983-84).

³⁷ Jonas' argument is offered in a number of places. The latest formulation is Hans Jonas, *The Imperative of Responsibility* (Chicago: University of Chicago Press, 1984).

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