

Enterprise Selection

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The selection of enterprises for the farm must be made in the context of the overall farm business strategy and long run vision. In addition, the proposed crop should be a reasonable choice for your farm with respect to soil and climate conditions and available resources. A list of alternative farm enterprises for California is presented in Table 1 but is not exhaustive. Further, for many enterprises listed there exist a large number of varieties, for example, tomatoes. The following discussion will focus on crop enterprises, but the basic concepts presented pertain to livestock enterprises as well.

Business Strategy

It is critical to have a clear business strategy for your farm to remain profitable and competitive. One basic strategy is becoming a low cost producer and competing on price. Farms choosing this option often tend to lower costs by increasing acreage and realizing economies of scale by spreading equipment and other overhead costs over a large acreage. Farms choosing this strategy typically sell volume to a few large buyers. However, this strategy can work for small farms under some conditions. Having the ideal location for a crop in terms of climate and proximity to market to reduce transportation costs are examples. Farms taking the low cost production approach tend to focus on one or two crops and are not highly diversified.

Another basic strategy is differentiation by producing a unique product. This can take the form of an unusual fruit or vegetable such as cardoon or olallieberries, or unusual varieties of common crops such as heirloom tomatoes or blood oranges. Differentiation can also mean extremely high quality such as very light colored, uniform, shelled walnuts. Success using the

differentiation strategy typically goes hand in hand with niche marketing. That is, selling to a small but well defined market such as restaurants or high end specialty stores. The differentiation strategy is often used in direct marketing. The differentiation strategy could mean focusing on production of a single commodity or a highly diversified operation depending on the marketing program.

A third basic strategy is being a service provider to customers. This means timely responsiveness to customer requests and reliability. Buyers may have specific requirements with respect to packaging, quality, variety, market window, and flexibility on the time and amount delivered. Service may require willingness to allow a customer to refuse product that does not meet stringent standards or supplying major customers when supplies are limited and demand outstrips supply. In some cases the customer may request that a specific crop be grown exclusively for them. In this case the customer is actually doing the enterprise selection.

Consistency and Feasibility

Each enterprise under consideration should be evaluated with respect to consistency with the ongoing business. First and foremost, does the proposed enterprise fit with the overall vision and strategy approach of the business? Consider how well it builds on current strengths and opportunities of the farm. Does it expose weaknesses such as labor shortages or late spring frost potential?

Research the climatic, soil, and input needs of the enterprise. See the section on Information Sources at the end of this chapter. If the operation is diversified, the crop should fit into the existing crop rotation with respect timing of planting and harvesting with consideration of labor and equipment needs. Storage may also be an issue. For each crop, create a detailed

calendar of operations specifying the equipment and labor needs for each operation. From this work plan, a projected budget of costs can be developed.

The calendar of operations and resource use will also provide insight into whether or not the proposed enterprise is reasonable given the resources available to the farm. It will also identify additional resources that may be needed with respect to equipment, tractors, and labor. The timing of operations is key. Adding an enterprise may create a labor need during a lull time on the farm creating the opportunity to keep a valuable employee from leaving for other work. It may also create a bottleneck where several crops have to be planted or picked at the same time putting a strain on available labor and equipment. Other potential conflicts in resource use include water and working capital.

An example calendar of operations for a hypothetical mixed vegetable operation with four fields is presented in Figure 1. The calendar shows the busiest equipment months to be May and September with activities in all four fields. Details could be added to the chart to show irrigation scheduling and hand hoeing in order to more completely reveal peak labor demand periods. Alternatively, separate charts could be developed for irrigation scheduling to spread out labor and water demands. From a cash flow perspective, income is generated in March, August, September and October.

Estimate the costs of production and the resource use to be realistic as to whether or not finances are adequate to produce the crop. It may be that a crop would be profitable but the cost of transplants or drip irrigation might be prohibitive. Sample costs of production for a variety of crop and livestock operations are available from the University of California Cooperative Extension <http://coststudies.ucdavis.edu>. Each study describes a range of best management practices and details the operations, input use, and costs for a hypothetical farm. A calendar of

operations and breakeven analysis are also included. An abbreviated example study for daikon, a Chinese radish, is presented in Tables 2 and 3. Table 2 presents the costs of production for each cultural operation broken out by labor; fuel, lube and repairs; and materials for each operation. Table 3 presents the same enterprise costs but does not list the operations and gives greater detail about the inputs. For example, Table 2 shows the labor cost for each operation and Table 3 shows the total hours of labor and the cost per hour. Table 2 gives the total cost of planting and Table 3 shows the number of pounds of seed and the cost per pound.

Each potential enterprise will require market research. It does no good to produce something if you can't find a buyer or can't sell it at a profitable price. It is a good idea to become familiar with overall industry trends to anticipate an increase or decrease in demand. This is particularly true for specialty items or niche markets. Find out who your competitors are, if possible, and see if they are in expansion mode.

The other aspect of marketing to consider is whether or not the new enterprise requires finding new customers or whether it will improve your relationship with existing customers. In the first case the new enterprise may require a significant increase in time spent marketing while in the latter case it will not.

Finally, reexamine the impact of the new enterprise on the overall business goals. Project whether or not the enterprise helps the farm stay profitable and achieve goals related to growth measured in acres, gross income, profit, or market access. Determine how the proposed crop contributes to long range environmental goals related to biodiversity on the farm, soil quality, air quality, and water quality.

Diversification

The degree of diversification or specialization will be determined in large part by the overall business strategy followed by the farm business. As discussed above, farms competing on price or selling to a niche market are more likely to specialize in a few or even just one commodity. In general, specialization is based on marketing and allows the farm to focus resources on limited enterprises and customers.

Enterprise diversification, on the other hand, creates opportunities to improve production, provide environmental benefits and enhance the economic performance of a farm. From the perspective of production, appropriate enterprise mixes can break insect and disease cycles, reduce weeds, supplement soil nutrients, improve soil structure and conserve soil moisture. These impacts in turn can mean higher yields and quality. Possible environmental benefits include softening the impact of crop and livestock production on resources, curbing erosion, and increased population of beneficial insects and other organisms.

From an economic perspective, the most commonly cited benefit of enterprise diversification is the reduction of risk. The sentiment follows the old adage, “Don’t put all your eggs in one basket.” Diversifying as opposed to specializing can spread marketing risk by expanding existing markets and opening new ones, and offsetting price swings in one commodity. Diversification can reduce production risk related to weather. It also helps to reduce financial risk by spreading expenses and income more evenly throughout the year.

Diversification is not without challenges. The new enterprise may require market development if it cannot be sold through existing channels. This will require market research. Any new enterprise means gathering information about varietal performance, best management practices, and postharvest handling. Depending on the uniqueness of the enterprise, this information can be difficult to find. Similarly, seed or transplant material may be hard to find or

in limited supply. Additional equipment may be required or modification to existing equipment. Storage capacity may need to be expanded. Finally, the learning curve for the new enterprise may be steep and increase demands on management time. At some point the farm may have too many enterprises spreading resources too thin and creating a situation where not enough time is devoted to any one enterprise.

Sources of Information

Other farmers are always an excellent sources of information and experience to find out what has and hasn't worked in the past in your area. Another source of ideas and production information given by many small farmers is seed catalogues from specialty seed companies. Chat rooms and listserves for gardeners can be useful for specific production information. Be cautious of salesman of propogative materials and seeds recommending what to grow. At the same time, a reputable company will provide important production guidelines.

Several University of California and government website resources provide invaluable information (Table 2). The University of California Division of Agriculture and Natural Resources website will guide you to your local Cooperative Extension office and list the expertise of the advisors in your county. The Fruit and Nut Research and Information Center website and Vegetable Research and Information Center website list University of California experts by crop and include important website links to industry. Technical production information is available from SAREP, the Small Farms Center, the Sustainable Agriculture Information Network, and SARE. Production manuals and pest management manuals are available from ANR Publications for several crops. The University of California IPM Program provides IPM guidelines for numerous crops on their website as well as degree day, weather

information, and other useful tools. The Department of Agricultural and Resource Economics at UC Davis maintains a website with cost and return information for a range of crop and livestock operations including organic production. Current market prices are available from the Market News Service but not for many but not all specialty crops.

Figure 1. Hypothetical Crop Rotation for a 14 Month Period

| Field | Acres | Crops | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | March | April | May | |
|-------|-------|---------------|-----------|-------|---------|---------|------|-------|-----------|------------|-------------|-------------|---------|-------|-----------|---------|--|
| 1 | 5 | Bell peppers | Land Prep | Plant | Harvest | | | | | | | | | | | | |
| | | Cover Crop | | | | | | | | | Prep Plant | Incorporate | | | | | |
| | | Winter Squash | | | | | | | | | | | | | Land Prep | Plant | |
| 2 | 5 | Winter Squash | Land Prep | Plant | Harvest | | | | | | | | | | | | |
| | | Cover crop | | | | | | | | Prep Plant | Incorporate | | | | | | |
| | | Chile Peppers | | | | | | | | | | | | | Land Prep | Plant | |
| 3 | 5 | Cucumber | Land Prep | | Plant | Harvest | | | | | | | | | | | |
| | | Cauliflower | | | | | | | Land Prep | Plant | | | Harvest | | | | |
| | | Lettuce | | | | | | | | | | | | | Land Prep | Plant | |
| 4 | 2 | Sweet Corn | Land Prep | | Plant | Harvest | | | | | | | | | | | |
| | | Snow peas | | | | | | | Land Prep | Plant | | | | | | Harvest | |

| Field Activity by Field Number | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | March | April | May |
|--------------------------------|-------|-----|------|------|------|-------|------|------|------|------|------|-------|-------|-----|
| Major production activities | | All | 3,4 | | 3,4 | All | 2,3 | 1 | | 4 | | 1,2,3 | 1,2,3 | All |
| Income producing fields | | | | | 3,4 | 1,2 | 1 | | | | | 2 | | 4 |

Table 1. California Commodities

Fruit & Nut Crops

Berries

Blackberry
 Blueberry
 Boysenberry
 Olallieberry
 Raspberry
 Strawberry

Citrus

Grapefruit
 Kumquat
 Lemons
 Lime
 Oranges
 Tangelo
 Tangerines

Grapes

Juice
 Raisin
 Table
 Wine

Nuts

Almond
 Chestnut
 Macadamia
 Pecan
 Pistachio
 Walnut

Pome Fruits

Apple
 Asian Pear
 Crabapple
 Pear
 Quince
 Stone Fruits, Other
 Apricot
 Cherry
 Nectarine
 Peaches, All
 Plum
 Prune

Subtropical & Tropical

Avocado
 Banana
 Cherimoya
 Date
 Fig
 Guava
 Jujube
 Kiwi Fruit
 Loquat
 Olive
 Passion Fruit
 Persimmon
 Pomegranate
 Pricklypear

Vegetable Crops

Alliums

Chives
 Garlic
 Leeks
 Onions
 Shallots
 Brassicas
 Arugula
 Broccoli
 Brussel Sprouts
 Cabbage
 Cauliflower
 Chinese Cabbage
 Collards
 Horseradish
 Kale
 Kohlrabi
 Misc Leaf Vegetables
 Mustard
 Raddish/Daikon
 Turnip
 Watercress

Chenopods

Beets
 Chard
 Spinach

Composites

Artichokes
 Burdock
 Cardoon
 Chickory
 Lettuce

Cucurbits

Cantaloupe
 Cucumber
 Gourd
 Honeydew
 Squash
 Watermelon

Legumes & Sprouts

Beans, Fresh Market
 Peas, Fresh Market
 Sprouts

Other

Vegetables r
 Jicama
 Rhubarb
 Sweet Potatoes
 Yams

Solanaceous Crops

Eggplants
 Peppers
 Potato
 Tomatillo
 Tomato, Processing
 Tomato, Fresh Market

Succulent Vegetable & Sweet Corn r

Asparagus
Mushrooms
Okra
Pricklypear,
Cactus Pads
Sweet Corn

Vegetable Crops cont.

Umbels & Herbs

Basil
Carrots
Celery, Celeriac
Cilantro
Fennel
Mixed Herbs
Parsley
Parsnip

Field Crops

Legumes

Cotton
Alfalfa
Beans, Dried
Peas, Dried
Soybeans
Vetch

Grain & Forage Crops

Barley
Buckwheat
Field Corn
Oats
Popcorn
Rice
Rye
Sudan Grass
Wheat
Wild Rice

Pasture & Rangeland

Pasture, Irrigated
Rangeland
Woodlot

Sugar Crops

Cane
Beets

Oil Crops

Joboba
Safflower
Sunflower

Seed Crops

Grass
Legume
Sunflower, Confectionary
Vegetable Seed
Tea

Livestock, Dairy & Poultry

Dairy Cattle
Honey
Cattle
Sheep & Lambs
Chickens, Meat
Layer Hens
Turkeys

Nursery, Greenhouse & Forestry

Cactus, Aloe vera
Christmas Trees
Edible Flowers
Greenhouse Cut Flowers
or Greens
Greenhouse Grown
Container Plants/Orn
Greenhouse Grown
Vegetable Transplants
Outdoor Grown Container
Plants/Ornamental
Outdoor Grown Cut
Flowers or Greens
Outdoor Grown Vegetable
Transplants
Vines, Canes & Other
Propagative Matter

Table 2. COST PER ACRE TO PRODUCE DAIKON
SAN JOAQUIN VALLEY 2005

| Operation | Operation | Cash and Labor Costs per Acre | | | | | Total Cost |
|---|---------------|-------------------------------|----------------------|---------------------------------|-------------|--------------|------------|
| | Time (Hrs/A) | Labor Cost | Fuel, Lube & Repairs | Material Cost | Custom/Rent | | |
| Cultural: | | | | | | | |
| Land Prep: Plow, Disc, List | 0.00 | 0 | 0 | 0 | 100 | 100 | |
| Land Prep: Flatten Bed Tops | 0.33 | 5 | 1 | 0 | 0 | 6 | |
| Fertilize: Preplant (15-15-15) | 0.09 | 1 | 0 | 59 | 0 | 61 | |
| Plant: Seed | 1.00 | 15 | 4 | 116 | 0 | 135 | |
| Irrigate: (water & labor) | 10.50 | 98 | 0 | 53 | 0 | 150 | |
| Fertilize: UN32 | 0.00 | 0 | 0 | 57 | 0 | 57 | |
| Miscellaneous Pickup Use | 5.00 | 75 | 59 | 0 | 0 | 134 | |
| TOTAL CULTURAL COSTS | 16.92 | 194 | 65 | 285 | 100 | 644 | |
| Harvest: | | | | | | | |
| Hand Pick, Wash & Pack | 104.00 | 969 | 0 | 715 | 0 | 1,684 | |
| Haul | 6.00 | 89 | 75 | 0 | 0 | 165 | |
| TOTAL HARVEST COSTS | 110.00 | 1,059 | 75 | 715 | 0 | 1,849 | |
| Interest on operating capital @ 7.65% | | | | | | 35 | |
| TOTAL OPERATING COSTS/ACRE | | 1,252 | 141 | 1,000 | 100 | 2,529 | |
| CASH OVERHEAD: | | | | | | | |
| Liability Insurance | | | | | | 43 | |
| Office Expense | | | | | | 10 | |
| Land Rent | | | | | | 300 | |
| Property Taxes | | | | | | 5 | |
| Property Insurance | | | | | | 4 | |
| Investment Repairs | | | | | | 3 | |
| TOTAL CASH OVERHEAD COSTS | | | | | | 364 | |
| TOTAL CASH COSTS/ACRE | | | | | | 2,893 | |
| Non-Cash Overhead (Capital Recovery) | | | | | | | |
| | | Per Producing Acre | | Annual Cost Capital Recovery | | | |
| Flat Irrigation Pipe | | 46 | | 25 | | 25 | |
| Miscellaneous Field Tools | | 100 | | 24 | | 24 | |
| Equipment | | 706 | | 94 | | 94 | |
| TOTAL NON-CASH OVERHEAD COSTS | | 852 | | 142 | | 142 | |
| TOTAL COSTS/ACRE | | | | | | 3,035 | |

Table 3. COST PER ACRE TO PRODUCE DAIKON
SAN JOAQUIN VALLEY - 2005

| | Quantity/ Acre | Unit | Price or Cost/Unit | Value or Cost/Acre |
|---|-------------------|------|-----------------------|-----------------------|
| GROSS RETURNS | | | | |
| Daikon | 650.00 | box | 8.00 | 5,200 |
| OPERATING COSTS | | | | |
| Carton: | | | | |
| Boxes 40 lb | 650.00 | each | 1.10 | 715 |
| Seed: | | | | |
| Daikon | 1.00 | lb | 116.00 | 116 |
| Custom/Contract: | | | | |
| Land Preparation | 1.00 | acre | 100.00 | 100 |
| Fertilizer: | | | | |
| 15-15-15 | 300.00 | lb | 0.20 | 59 |
| UN32 | 440.00 | lb | 0.13 | 57 |
| Irrigation: | | | | |
| Water | 21.00 | each | 2.50 | 53 |
| Labor (machine) | 14.91 | hrs | 12.42 | 185 |
| Labor (non-machine) | 114.50 | hrs | 9.32 | 1,067 |
| Fuel - Gas | 45.82 | gal | 2.05 | 94 |
| Fuel - Diesel | 2.70 | gal | 1.51 | 4 |
| Lube | | | | 15 |
| Machinery repair | | | | 28 |
| Interest on operating capital @ 7.65% | | | | 35 |
| TOTAL OPERATING COSTS/ACRE | | | | 2,529 |
| NET RETURNS ABOVE OPERATING COSTS | | | | 2,671 |
| CASH OVERHEAD COSTS: | | | | |
| Liability Insurance | | | | 43 |
| Office Expense | | | | 10 |
| Land Rent | | | | 300 |
| Property Taxes | | | | 5 |
| Property Insurance | | | | 4 |
| Investment Repairs | | | | 3 |
| TOTAL CASH OVERHEAD COSTS/ACRE | | | | 364 |
| TOTAL CASH COSTS/ACRE | | | | 2,893 |
| NON-CASH OVERHEAD COSTS (Capital Recovery) | | | | |
| Flat Irrigation Pipe | | | | 25 |
| Miscellaneous Field Tools | | | | 24 |
| Equipment | | | | 94 |
| TOTAL NON-CASH OVERHEAD COSTS/ACRE | | | | 142 |
| TOTAL COSTS/ACRE | | | | 3,035 |
| NET RETURNS ABOVE TOTAL COSTS | | | | 2,165 |

Table 4. Internet Resources for Small Farmers

Minnesota Institute for Sustainable Agriculture, 2003. Building a Sustainable Business: A Guide to Developing a Business Plan for Farms and Rural Businesses.

<http://www.sare.org/publications/business/business.pdf>

<http://www.sare.org/publications/business.htm>

Sustainable Agriculture Research and Education, USDA.

<http://www.sare.org>

Sustainable Agriculture Research and Education Program, UC www.sarep.ucdavis.edu

Small Farms Center, University of California

www.sfc.ucdavis.edu

Sustainable Agriculture Farming Systems Project, University of California-Davis.

<http://safs.ucdavis.edu>

Fruit and Nut Information Center, University of California.

<http://fruitsandnuts.ucdavis.edu>

Vegetable Research Information Center, University of California.

<http://vric.ucdavis.edu>

Postharvest Technology Research and Information Center

<http://postharvest.ucdavis.edu>

Farm and Home Advisors Office, University of California Cooperative Extension.

<http://ucanr.org/ce.cfm>

ANR Publications

<http://ucanr.org/pubs.shtml>

University of California IPM Program

<http://www.ipm.ucdavis.edu>

Cost and Return Studies, Dept. of Agricultural and Resource Economics, UCD.

<http://coststudies.ucdavis.edu>

Market News Service, Agricultural Marketing Service, USDA

<http://www.ams.usda.gov/marketnews.htm>

Fruit and Vegetable Market News, Agricultural Marketing Service, USDA

<http://www.ams.usda.gov/fv/mncs/index.htm>

National Agricultural Statistical Service, California Field Office.

www.nass.usda.gov/ca

ATTRA – National Sustainable Agriculture Information Service <http://attra.ncat.org/>