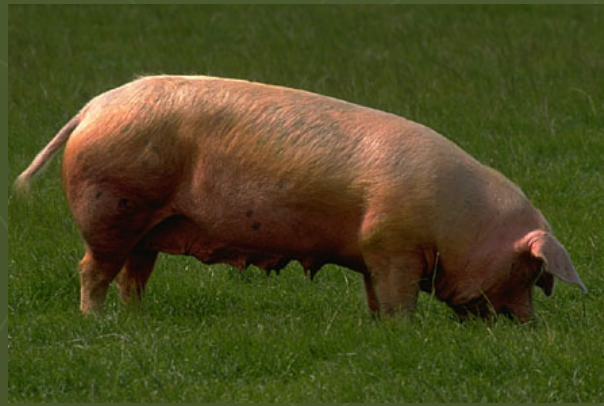


Farm Planning and Enterprise Selection

Exploring the Small Farm Dream



Thank you to the New England Small Farm Institute and Cornell University for materials and information related to small farm planning.

What is a Small Farm?

- ▶ A small, family farm is a farm with gross sales less than \$250,000.*
- ▶ Limited-resource farms
- ▶ Retirement Farms
- ▶ Lifestyle Farms
- ▶ Farming-occupation farms –
 - Low-sales farms
 - Medium-sales farms



**USDA Department of Agriculture, National Commission on Small Farms, 1998*

U.S. Small Farm Statistics

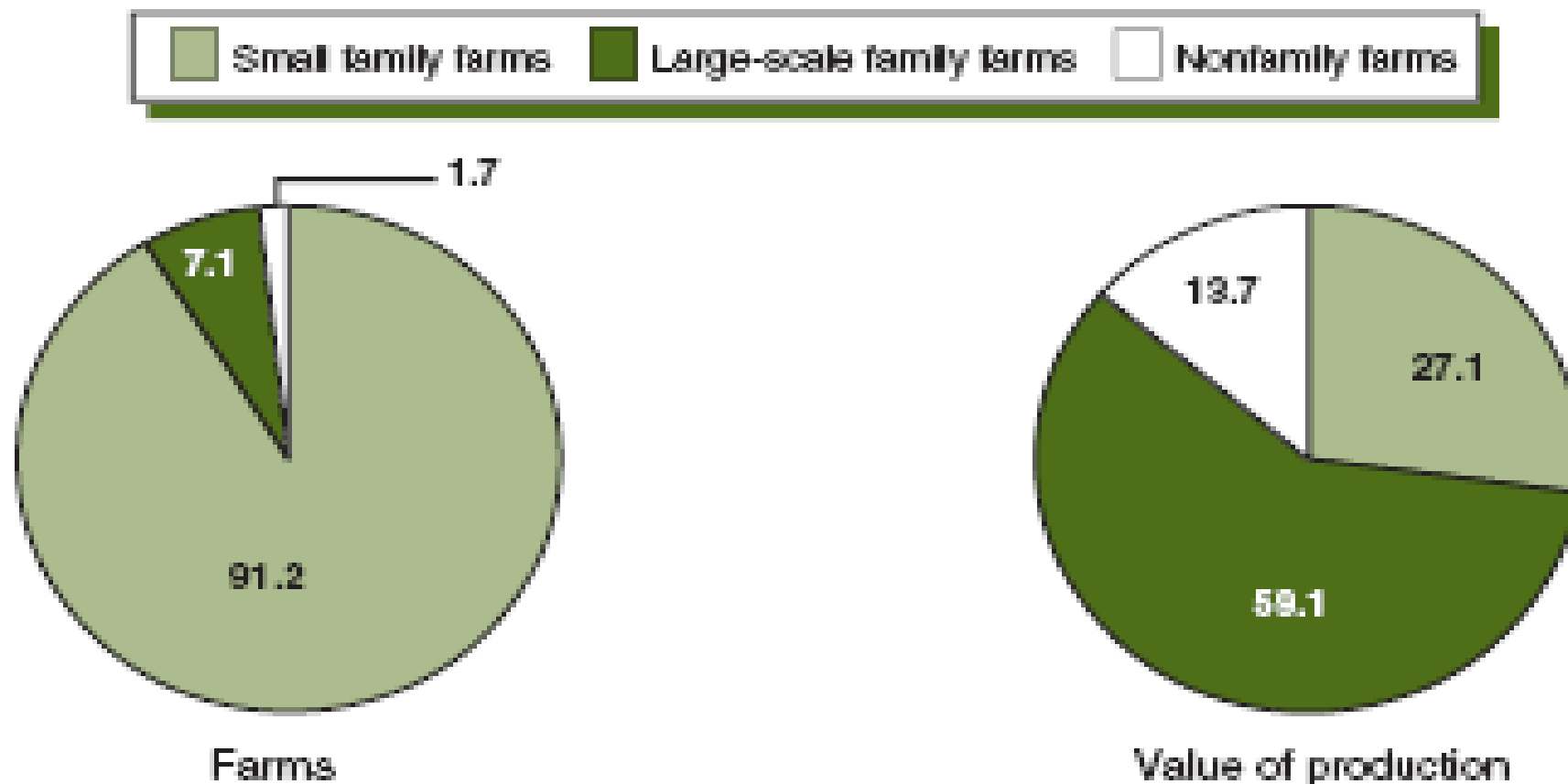
- ▶ Small, family farms make up 91% of all U.S. farms.
- ▶ Small farms account for most farm assets including 70% of the land owned by farms.
- ▶ Small farms account for 82% of the land enrolled in the Conservation Reserve Program and Wetlands Reserve Program.
- ▶ But, large-scale family farms account for 59% of the value of production, while small farms account for only 27%.

Figure 3

Share of total farms and value of production, 2003

Large-scale family farms and nonfamily farms account for 73 percent of production

Percent of U.S. farms or production



Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

Jackson County Small Farms

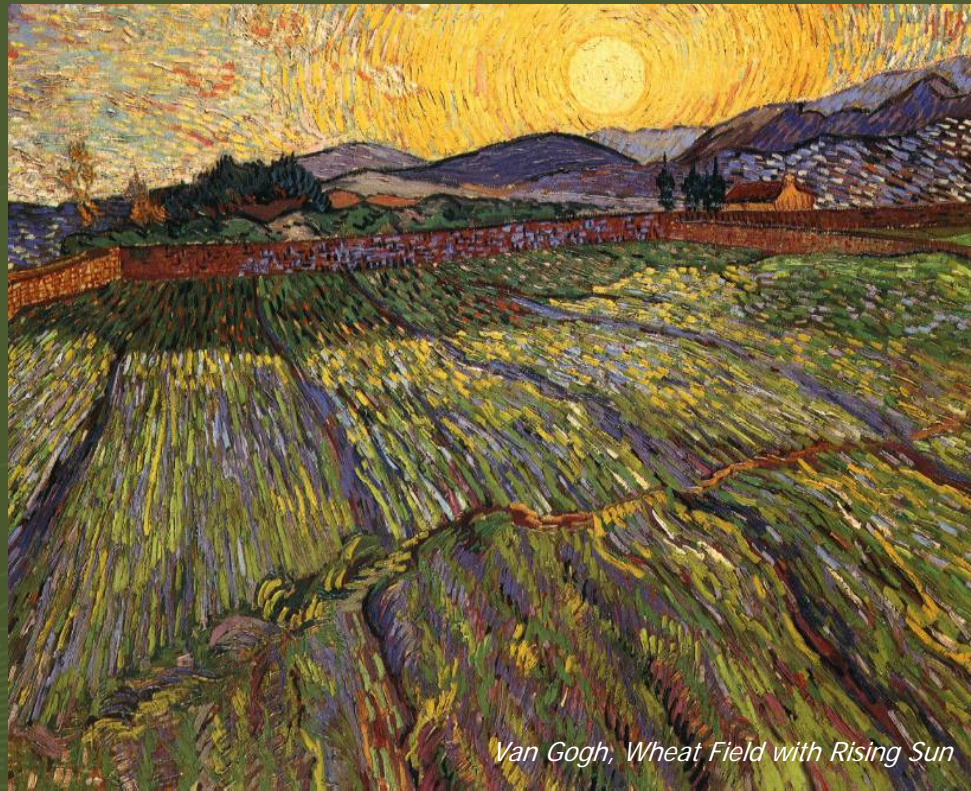
- ▶ 1,953 farms.
- ▶ Average size of farms is 129 acres.
- ▶ 70% of the farms are under 50 acres.
- ▶ 97% of the farms made less than \$100,000.
- ▶ Average market value of production for a farm was \$27,748 in 2002.
- ▶ 26.87% of farms in cropland, 37.52% of farms in pasture, the rest is in woodland and other uses.

The Importance of Small Farms

- ▶ Increase the biological diversity of landscapes.
- ▶ Land in financially successful small farms may be preserved from urban and/or industrial farming uses.
- ▶ Provide varying levels of rural income and economic opportunity for rural communities.
- ▶ Enhance access to fresh foods for urban areas where food security is a problem.
- ▶ Part of the cultural heritage of rural communities.



Describe Your Small Farm Dream



► Why do you want to farm?

Whole Farm Planning

- ▶ Ties all elements of a farm plan together—*environmental, economic* and *social*—into an integrated whole.
- ▶ Provides a road map for the future.
- ▶ Helps to plan for future profitability.
- ▶ Prepares you for expansion and change.
- ▶ Helps you consider environmental quality, personal goals and economics.
- ▶ Provides you with a nice reference document.

Whole Farm Planning

Box 3

Four Phases of a Whole-Farm Planning Process



Setting Goals



1. Quality of life for you and your family.
2. Your vision for the future of your farm.
3. How your farm enterprise will provide the income and living environment you need.
 - ▶ *Develop long-term and short-term goals that correspond to the social, environmental and economic resources of your farm.*
 - ▶ *Set goals with everyone involved with the farm.*

Quality of Life Considerations

- ▶ What is it you want from your life?
- ▶ How can you make farming enjoyable and rewarding for the whole family?
- ▶ What would you like for your children and for your community?
- ▶ In laying out your quality of life goals, think about your **health**, **happiness**, and **cultural** needs as well as your **time** and **spiritual** values.

Vision for future of your farm

- ▶ What do you expect to produce from your land?
- ▶ Do you want to produce your own food, or do you want profits from crops and livestock?
- ▶ What stewardship practices are important to you?
- ▶ What do you want your farm to look like in the future?
- ▶ What key elements should be included in your vision of the farm, i.e. water quality, wildlife preservation, etc.?



Financial Considerations & Goals

- ▶ Will this provide the full income for your family, or will it be supplemental to another job?
- ▶ How long can you wait before your agricultural enterprise generates income?
- ▶ What kind of money can you invest up front?
- ▶ What financial obligations do you have, or is your goal to reduce debt?



Examples of Goals

- ▶ I want to improve the soil conditions on my farm.
- ▶ I want to put my farm into a conservation easement and leave it to my family for farm-use.
- ▶ I want the flexibility of working at home and for myself with my family on the land.
- ▶ I want to develop a more profitable marketing strategy.



Assessing Your Resources

- ▶ Evaluate your physical, financial and labor resources to choose an **appropriate** enterprise.
- ▶ Even if you already have an enterprise idea, do your farm inventory anyway—it will show the suitability of your enterprise and maybe, bring up new ideas.

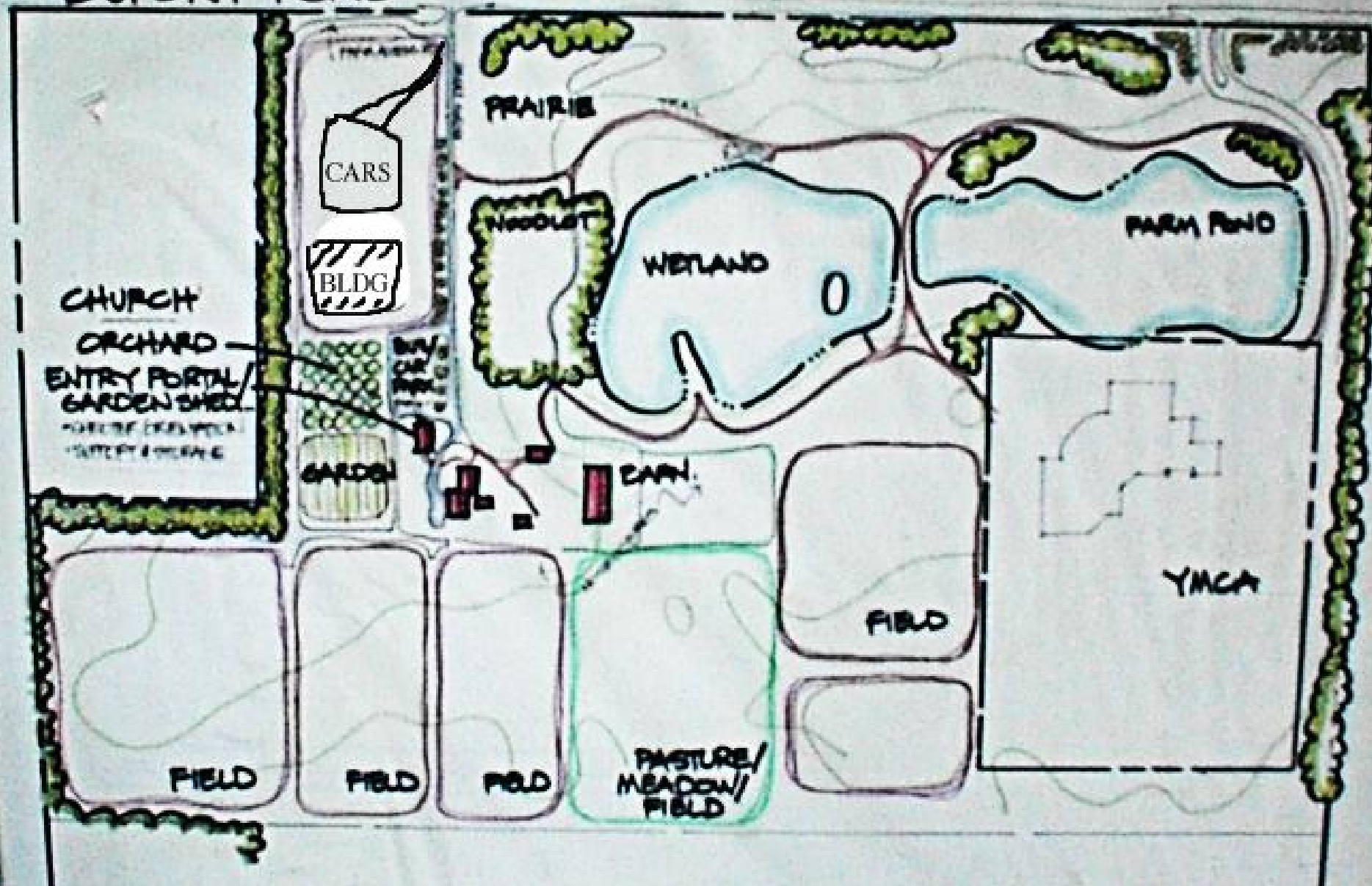


Start With a Farm Map

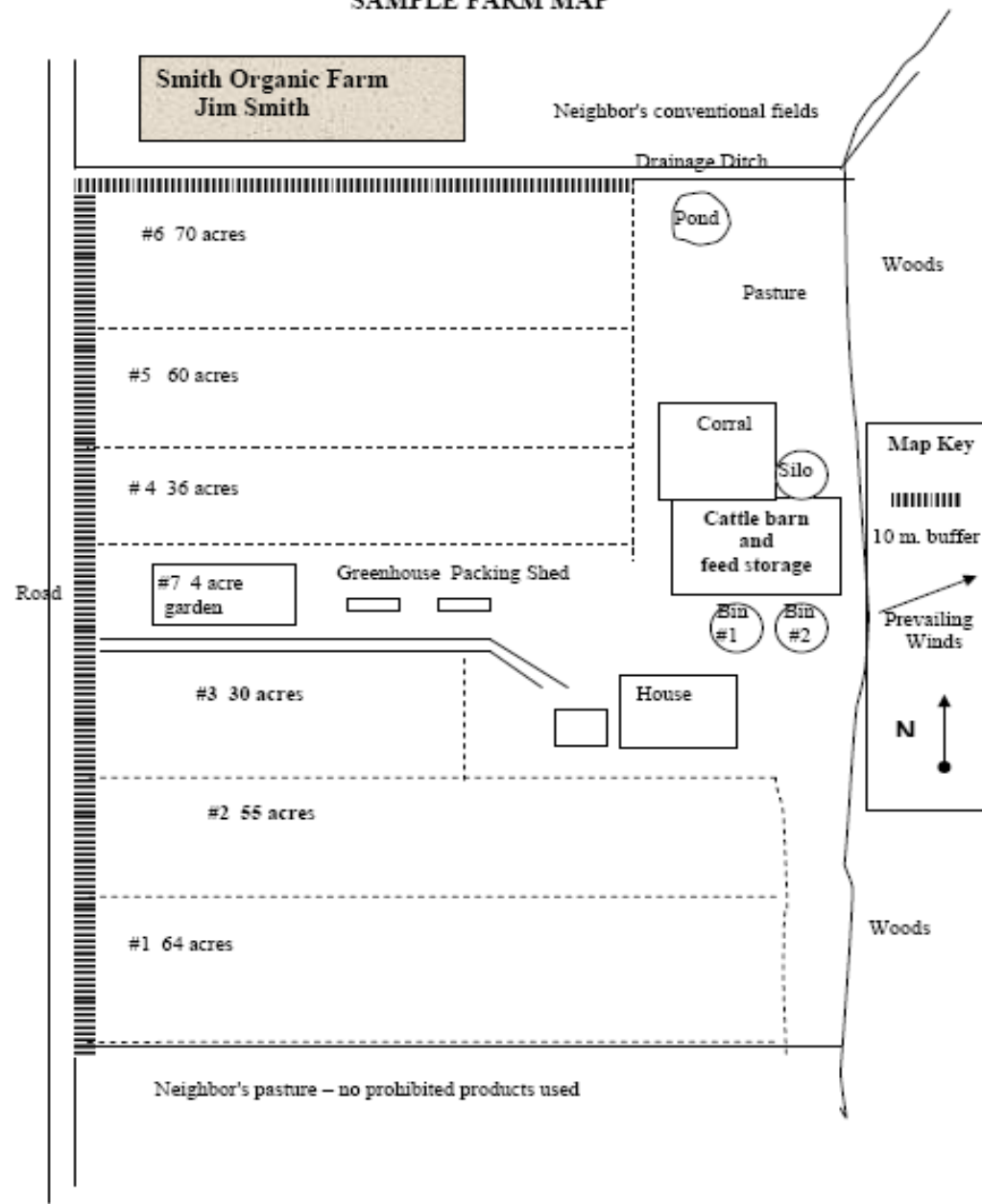


- ▶ Creating a visual map of your farm will help you understand your resources, enterprise options and land limitations.
- ▶ Use aerial maps of your farm to map out your farm plan.
- ▶ Or, draw your farm and add-in all stationary buildings, wells, etc.
- ▶ Using your farm map to draw out various fields or paddocks will help you plan for future costs and long-term design.

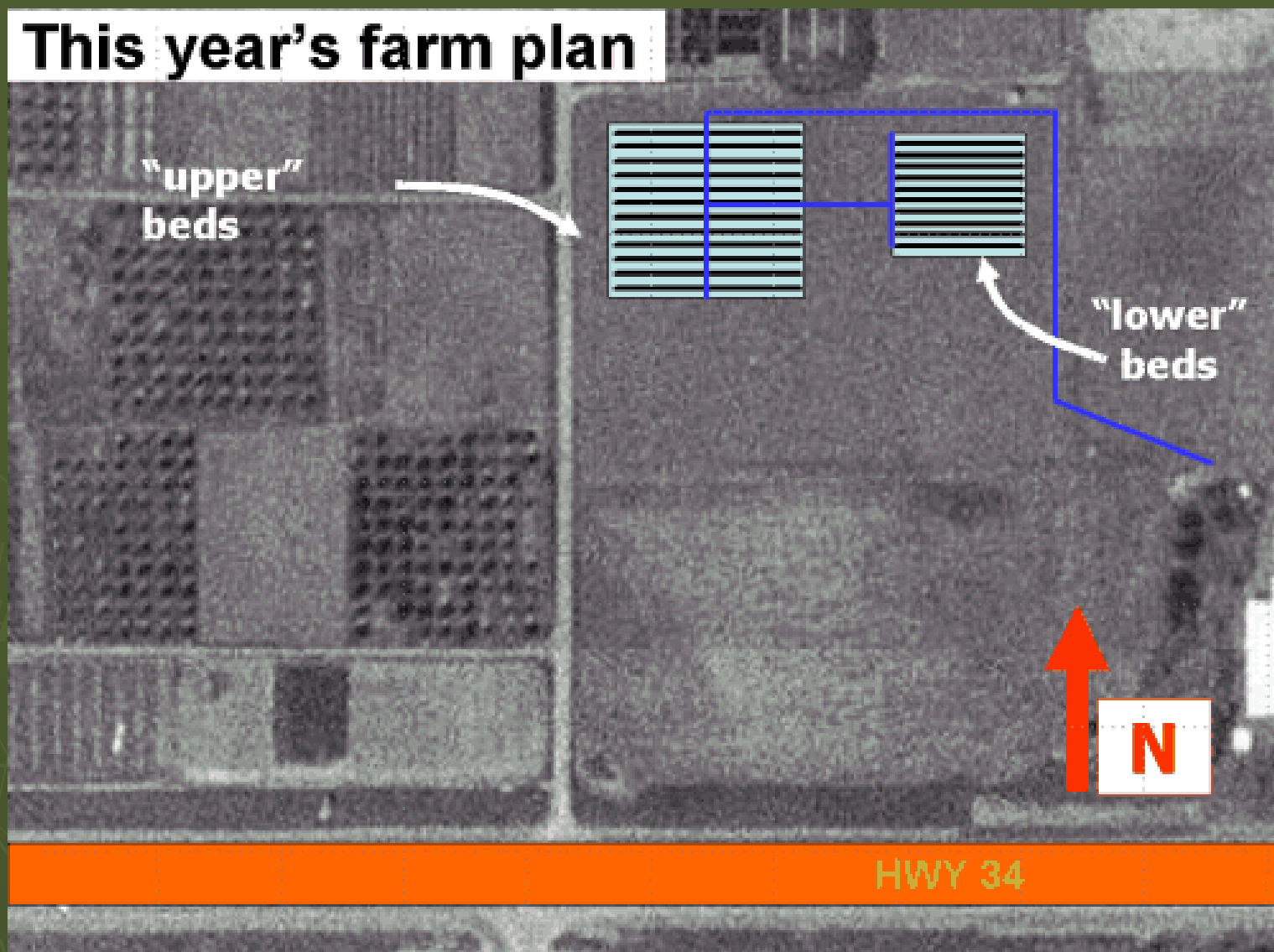
DUPONT ROAD



SAMPLE FARM MAP



This year's farm plan



Resources to Evaluate

- ▶ Capital
- ▶ Skills
- ▶ Labor
- ▶ Land
- ▶ Soils
- ▶ Water
- ▶ Climate
- ▶ Equipment
- ▶ Marketing



Land

- ▶ What size is your farm?
- ▶ How much land is in timber, woodlot, pastures or brush?
- ▶ The condition of your land, soil type and climate are the main factors in determining what you can do on your farm.



Classifying Land

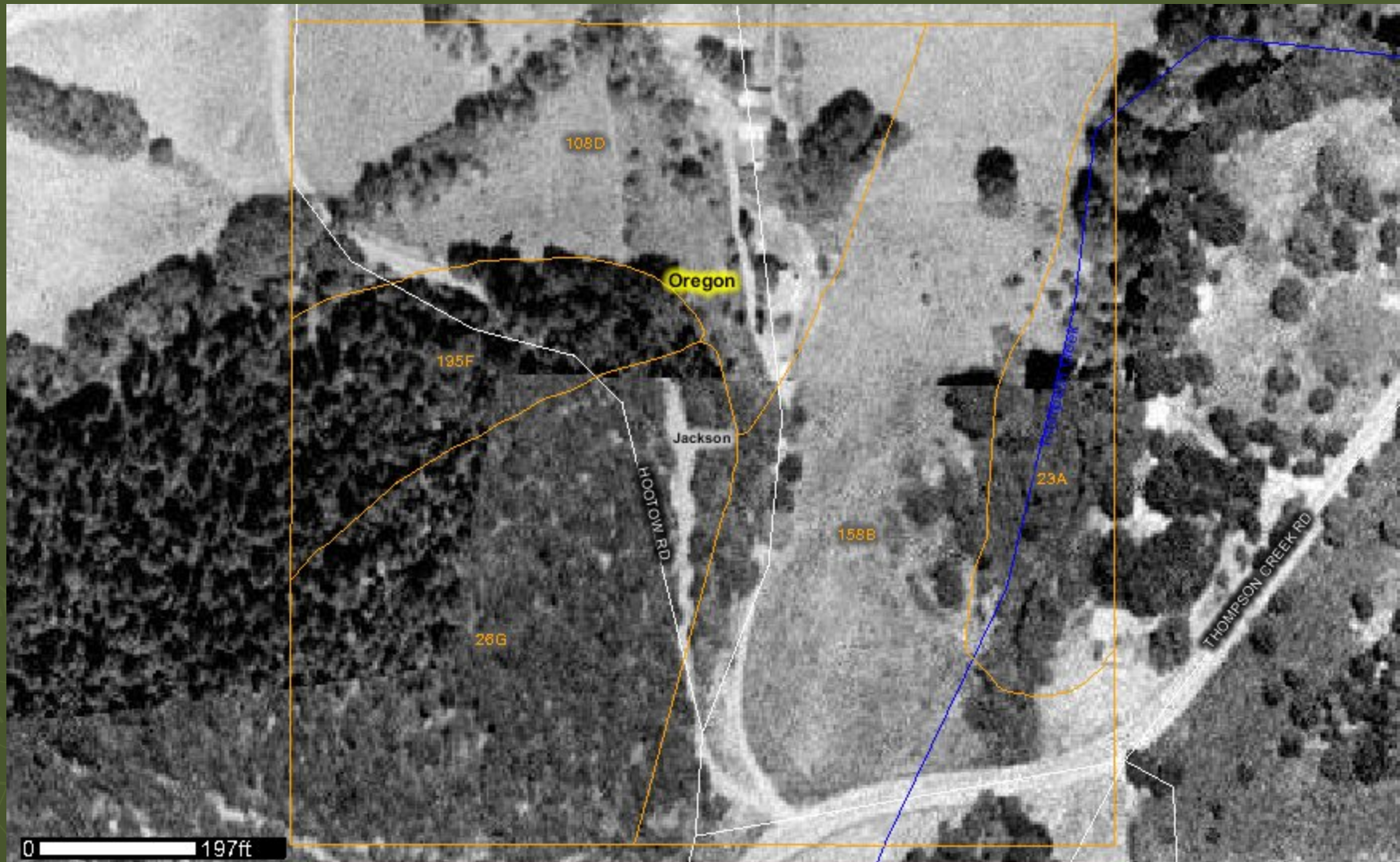
- ▶ Eight capability classes defining usage and treatment of land.
- ▶ Classes are based on slope of land, available water capacity and soil drainage.
- ▶ Generally, class 1 – 4 are suitable for cultivation and classes 5 – 8 are suitable for pasture, woodland or wildlife.
- ▶ With proper management and conservation practices, lands may be used for cultivation that are not classified as such.

Soils



- ▶ There are more than 18,000 soils in the U.S.
- ▶ Each type of soil varies in shallowness and depth, clay to sand to loam and well-drained or wet.
- ▶ Each type of soil is suitable for different crops and livestock.
- ▶ What is your soil type and fertility?

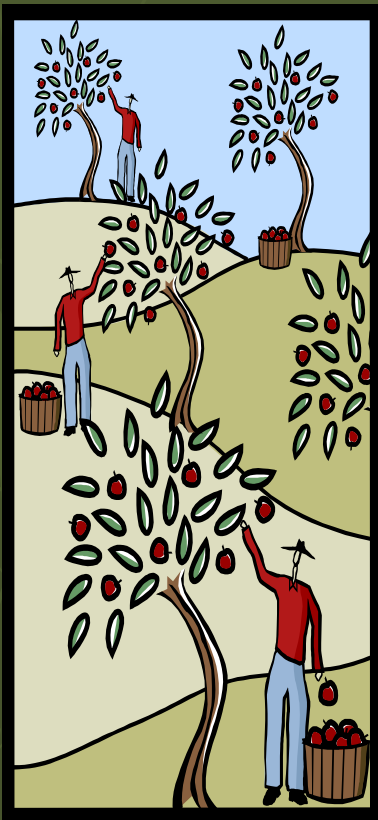




Two types of soils: 158B, Ruch gravelly silt loam, 2 to 7 percent slopes & 108D: Manita loam, 7 to 20 percent slopes

Know Your Land

- ▶ Find out your soil classifications, series, properties and usage online.



- ▶ Get your soil tested for fertility, and any contaminants as well.
- ▶ Natural Resource Conservation Service--Online Soil Surveys for Jackson County

<http://websoilsurvey.nrcs.usda.gov/app/>

Water

- ▶ What kind of water do you have on your farm?
- ▶ Where does the water come from? Does it start on your farm?
- ▶ Do you have water rights on your farm?
- ▶ What can you irrigate from – a creek, river, irrigation ditch, pond or well?
- ▶ Is your water source unpolluted?



Water

- ▶ Find out the water needs for the various enterprises you are interested in undertaking.
- ▶ Know the flow and quantity of water from your wells.
- ▶ Have your water tested for mineral content and pollution.
- ▶ Visit with the Jackson County Watermaster to review your water rights.

<http://www.co.jackson.or.us>, or (541) 774-6880

Climate

- ▶ Temperatures and frost zones are important to consider when deciding what to farm.
- ▶ Sun exposure, rainfall, air movement and frost are very important factors to consider in a successful small farming venture.
- ▶ Some crops need a minimum of heat units over time to mature, i.e. tomatoes.
- ▶ You can create microclimates on your farm with windbreaks, trees, greenhouses and high tunnels, buildings and natural depressions in the land.



Climate

- ▶ For descriptions of last frost dates, annual precipitation, average growing season numbers, and average temperatures, go to the OSU climate page for Jackson and Josephine Counties at <http://www.ocs.oregonstate.edu/index.html>.
- ▶ For example, in Medford
 - Climate Zone 3
 - Last frost date - ~May 15th (give or take a few weeks)
 - First frost date - ~October 15th (give or take a few weeks)
 - Mean Annual Precipitation – 18.37"
 - 75% of rain falls between November - March
 - Mean Annual Temperature – 54.5 degrees
 - Average growing season is between 140 – 200 days, depending on elevation.

Equipment

- ▶ What are the equipment needs for your enterprise?
- ▶ Tractors, tractor implements, high-quality hand tools, fencing and other equipment can be an expensive investment. Do your research and know what you need for production and efficiency.



- ▶ Capitalize on free energy resources to do the work for you, i.e. sun, wind, livestock. Be creative!

Capital

- ▶ How much are you willing to risk on the enterprise?
- ▶ Do you have savings, or are you willing to borrow money for the investment?
- ▶ Do your neighbors or others have equipment you can rent?
- ▶ Can you buy old equipment and refurbish?
- ▶ How long can you wait before you get a return on your investment?



Skills

- ▶ What do you love to do?
- ▶ What do you know how to do?
- ▶ Learn how to manage your enterprise by farming with someone else, at trainings and classes or through trial-and-error.
- ▶ What do you do well?
- ▶ How much time do you want to spend farming and marketing?



What skills do you need?



- ▶ *Vegetables* – crop and soil knowledge, planting, field prep, harvesting, weather/season, pest and weed control, irrigation, marketing.
- ▶ *Vine & Bramble* – soil and planting knowledge, propagation, trellising, cultivation and harvesting, adding value, irrigation, winter prep, etc.
- ▶ *Sheep* – Breed knowledge, flushing, tagging, delivery of lambs, shearing, handling/moving sheep, behavioral knowledge, shelter and feeding needs, fencing and marketing.



Labor

- ▶ Will it be just you working, or will you have a combination of family working on the farm?
- ▶ How much labor does your enterprise require and do you have the time available to meet the crop or animal's labor needs?
- ▶ Think about timing and season, also when thinking about labor.
- ▶ If a family enterprise, think about what each person is good at and divide labor that way.



Labor

- ▶ Farm labor is generally measured by the number of 10-hour work days required under average conditions to take care of a certain number of acres, or so many head of livestock.*
- ▶ Six 10-hour days per week for 50 weeks allows for 3,000 hours of labor available for one full-time farmer.
- ▶ Think about seasonal labor costs if your production outgrows your family.
- ▶ Don't forget to budget in leisure time with family to keep the quality of life standard very high.

**Making Your Small Farm Profitable – Ron Macher, 1999*

Marketing



- ▶ Who will you sell to? How much and at what price?
- ▶ Excellent marketing skills are necessary for a new enterprise.
- ▶ Do market research and design a marketing plan.
- ▶ Find a niche.



Create an Action Plan



- ▶ Evaluate your inventory and goals to identify potential enterprises or management alternatives that work for you.
- ▶ What do you need to in the next six to twelve months to meet some of your short-term goals?
- ▶ Always return to your goals and vision when designing your action plan.

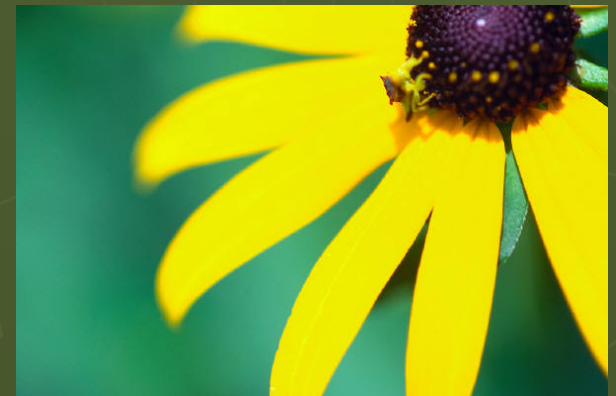
Monitor Your Success

- ▶ As you go along, evaluate how the plan is working and refine as necessary.
- ▶ Keep good records and check-in with your progress to see how you are reaching your goals.
- ▶ Goals may need revising over time.

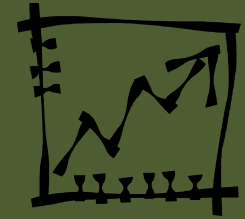


Diversification to Enhance Your Farm & Profits

- ▶ Diversifying spreads your economic risk.
- ▶ Exploits profitable niche markets.
- ▶ Creates new agricultural industries.
- ▶ Aids the local economy by allowing producers to grow crops that would otherwise be imported.



Enhancing Profits



- ▶ Strategic diversification improves your overall economic picture.
- ▶ Choosing an alternative crop may bring you higher gross income with production costs dropping.
- ▶ Reduces economic risk associated with weather or pest damage in any one farm crop situation.
- ▶ As markets expand for diverse products, there is more opportunity for product development.



Ecology & Community

- ▶ Farm ecosystem diversity = stability in the farm environment.



- ▶ Direct marketing of diverse and alternative crops creates new opportunities for processing, packaging and new products.

Enterprise Budgets

- ▶ They are useful planning tools to help you determine the most profitable enterprise.
- ▶ Can also assist with developing your markets and clarifying your action plan.
- ▶ You can develop your own or start with one that has already been developed.



Enterprise Budgets

- ▶ Generally split out into variable operating costs, fixed costs and expected production returns.
- ▶ They can be simple or complex, but should give you a clear idea whether you can break-even, make a profit or lose money.



Sample Budget for Organic Brown Egg Flock

1,000 organic hens kept to 70 weeks of age.

Item	Quantity	Unit	Price	Total	Your Estimate
Receipts					
Jumbo and extra large	8,311	doz			_____
Large	9,638	doz			_____
Medium	3,981	doz			_____
Receipts from eggs	21,930	doz	\$2.00	\$43,860	_____
Fowl sold: 922 @ 4.85 lb	4,472	lb	\$0.70	\$3,130	_____
<i>Total receipts</i>				\$46,990	_____
Variable costs					
Organic pullets	1,000	bird	\$3.35	\$3,350	_____
Organic feed	865	cwt	\$16.00	\$13,840	_____
Advertising				\$400	_____
Electricity				\$185	_____
Auto, truck, misc. supplies				\$450	_____
Repairs and maintenance				\$150	_____
Egg cartoning and packaging				\$3,289	_____
<i>Total variable costs</i>				\$21,664	_____
<i>Returns above variable costs</i>				\$25,325	_____
Fixed costs					
Labor	1,040	hr	\$0.00	\$0	_____
Insurance and taxes				\$125	_____
Egg and cooling room	\$2,500	10 yr		\$250	_____
Building	\$6,600	10 yr		\$660	_____
Equipment	\$4,052	10 yr		\$405	_____
<i>Total fixed costs</i>				\$1,440	_____
Total costs				\$23,105	_____
Net returns				\$23,885	_____

Assume birds are housed at 18 weeks of age and sold at 70 weeks of age (52 weeks of production).

Feed fed during the 52 weeks = 90 lb/bird.

Mortality estimated at 0.15% per week.

Initial resource requirements

- Land: 2 acres (needed land includes buildings and waste disposal)
- Labor: 1,040 hours
- Harvesting costs: \$800 per acre
- Capital
 - Pullets: 1,000 birds X \$3.35 = \$3,350
 - Buildings, equipment (including egg cooler): \$13,152
 - Total capital investment: \$16,502

Fresh-Market Highbush Blueberry Production Budget

Per acre costs for land preparation, establishment, and mature production.

	Land preparation (year -1)	Your estimate	Planting establishment (year 0)	Your estimate	Mature planting (year 4+)	Your estimate
Variable costs						
Custom operations	\$74.60	_____	\$34.80	_____	\$6.00	_____
Fertilizer	\$311.00	_____	\$16.00	_____	\$32.00	_____
Herbicides	\$0.00	_____	\$129.64	_____	\$212.10	_____
Insecticides	\$0.00	_____	\$10.88	_____	\$74.85	_____
Fungicides	\$0.00	_____	\$0.00	_____	\$103.24	_____
Seed	\$48.00	_____	\$60.00	_____	\$0.00	_____
Plants	\$0.00	_____	\$2,001.00	_____	\$0.00	_____
Irrigation	\$0.00	_____	\$620.00	_____	\$120.00	_____
Mulch	\$0.00	_____	\$250.00	_____	\$0.00	_____
Bee rental	\$0.00	_____	\$0.00	_____	\$25.00	_____
Labor	\$8.00	_____	\$400.05	_____	\$5,526.19	_____
Fuel	\$0.00	_____	\$4.23	_____	\$7.32	_____
Repairs & maintenance	\$0.00	_____	\$3.12	_____	\$8.07	_____
Interest	\$22.62	_____	\$188.13	_____	\$16.87	_____
Total variable costs	\$464.23	_____	\$3,717.84	_____	\$6,131.63	_____
Fixed costs						
Equipment	\$0.00	_____	\$6.22	_____	\$14.71	_____
Land	\$100.00	_____	\$100.00	_____	\$100.00	_____
Total fixed costs	\$100.00	_____	\$106.22	_____	\$114.71	_____
Total costs	\$564.23	_____	\$3,824.06	_____	\$6,246.35	_____

Returns above total costs for various price and yield combinations:

Price received (\$/lb)	Yield (lb/A)			
	4,000	6,000	8,000	10,000
\$0.75	-\$646	-\$446	-\$246	-\$46
\$1.00	\$354	\$1,054	\$1,754	\$2,454
\$1.25	\$1,354	\$2,554	\$3,754	\$4,954
\$1.50	\$2,354	\$4,054	\$5,754	\$7,454
\$1.75	\$3,354	\$5,554	\$7,754	\$9,954
\$2.00	\$4,354	\$7,054	\$9,754	\$12,454
\$2.25	\$5,354	\$8,554	\$11,754	\$14,954

Minimum price needed to cover total costs at various yields:

\$/lb	\$0.91	\$0.82	\$0.78	\$0.75
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Initial resource requirements

- Land: 1 acre
- Labor
 - Land preparation: 4 hours
 - Establishment: 54 hours
 - Production for years 1-4: 16-32 hours
 - Production for mature planting: 40 hours
 - Custom harvest labor: \$5,200
- Capital
 - Land preparation: \$564
 - Blueberry plants: \$2,001
 - Irrigation system: \$550
 - Mulches and soil amendments: \$561

New Farmer Resources

- ▶ Oregon Small Farms
<http://oregonstate.smallfarms.edu>
- ▶ Growing New Farmers
www.growingnewfarmers.org
- ▶ Washington Small Farms
<http://smallfarms.wsu.edu>
- ▶ Center for Integrated Agricultural Systems
<http://www.cias.wisc.edu/>

Business Planning Resources

- ▶ Oregon Small Business Development Center

<http://www.bizcenter.org/>

- ▶ BizPlanIt

<http://www.bizplanit.com/vplan.html>

- ▶ U.S. Small Business Administration

http://www.sba.gov/starting_business/planning/basic.html

- ▶ The Deming Center Business Planning Center

<http://leeds-faculty.colorado.edu/moyes/bplan/>

Enterprise Budget Links

- ▶ Oregon State Univ. Agricultural Enterprise Budgets
http://oregonstate.edu/dept/EconInfo/ent_budget
- ▶ Agricultural Alternatives
<http://agalternatives.aers.psu.edu/Default.asp>
- ▶ UC Davis Cost & Return Studies
http://www.agecon.ucdavis.edu/outreach/cost_and_return.php
- ▶ UC Vegetable Research & Information Center
<http://vric.ucdavis.edu/veginfo/topics/prodcosts/organiccostsreport.htm>

Other Resources

- ▶ Oregon State University Extension Service
<http://extension.oregonstate.edu/>
- ▶ Appropriate Technology Transfer for Rural Areas
www.attra.org
- ▶ National Agricultural Library Rural Information Center
<http://www.nal.usda.gov/ric/>
- ▶ Sustainable Agriculture Research and Education
www.sare.org
- ▶ Alternative Farming Systems Information Center
<http://www.nal.usda.gov/afsic/>
- ▶ Organic Farming Research Foundation
www.ofrf.org

