Yolo County LESA Model Instruction Manual

Land Evaluation and Site Assessment

1998

Prepared for Yolo County Local Agency Formation Commission
By the Yolo County Agricultural Forum LESA Subcommittee

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I. Introduction

The following Yolo County Land Evaluation and Site Assessment (LESA) Model has been designed as a potential planning tool to assist in making decisions concerning the relative significance of agricultural land resources. The model itself is rooted in concepts originally devised at the federal level, but has been customized to address the unique agricultural resource issues of Yolo County.

Background on LESA on the National Level

In 1981, the federal Resources Conservation Service (NRCS), known at the time as the Soil Conservation Service, released a new system that was designed to provide objective ratings of the agricultural suitability of land compared to demands created by nonagricultural uses of land. The rating system became known as Land Evaluation and Site Assessment, or LESA. Soon after it was designed, LESA was adopted as a procedural tool at the federal level for identifying and addressing the potential adverse effects of federal programs (e.g., funding of highway construction) on farmland protection. The Farmland Protection Policy Act of 1981 (Public Law 97-98) spells out requirements to ensure that federal programs, to the extent practical, are compatible with state, local and private programs and policies to protect farmland, and calls for the use of LESA to aid in this analysis. Typically, staff of the NRCS is involved in performing LESA scoring analyses of individual projects that involve other agencies of the federal government.

Local adaptation of LESA Models

Since its inception, the LESA approach has received substantial attention from state and local governments as well. Nationwide, over two hundred jurisdictions have developed local LESA methodologies. One of the attractive features of the LESA approach is that it is well suited to being modified to reflect regional and local conditions. Typical local uses of LESA have included assisting in decision making concerning the siting of projects, alterations in land zoning, and sphere of influence determinations. LESA is also increasingly being utilized for farmland protection programs, such as the identification of priority areas to concentrate conservation easement efforts.

Common Features of all LESA Models

All LESA models are based upon the identification of factors that can be linked to the relative significance of agricultural land resources. Factors are classified as two types: 1) Land Evaluation factors, focusing on the inherent qualities of soil (and sometimes water) resources, utilizing information that is commonly found within modern soil surveys; and 2) Site Assessment factors, which typically deal with social, political, and geographic issues that are also considered important measures of agricultural significance, such as parcel size and proximity to urban areas.

Within a given LESA model, each factor is provided with a definition of how it is to be measured, and a point scale assigned. Increasingly, LESA models rate each factor on a 100 point scale, with 0 points being assigned to factors with very low values, and highest value ratings attaining up to 100 points. Once all factors have been rated (scored) each factor becomes weighted to determine its relative importance to all of the other factors being used. As a simple example, there may be two Land Evaluation factors and two Site Assessment factors in a given model, three of which are each weighted at 30% of the total value, and the final factor weighted at 10% of the total value. The actual number of factors being rated is very flexible, and will depend upon local conditions. The important detail is that the sum of the percentages (weights) of each score must add up to 100%. In this way a single numeric score (e.g., 75 points out of 100 possible points) will be attained when all of the weighted factors are summed.

Development of the Draft Yolo County LESA model

The Draft Yolo County LESA model was developed utilizing the procedures outlined above. Land Evaluation factors include information on the USDA Land Capability Classification and Storie Index Ratings for soils mapped within the Yolo County Soil Survey, as well as a measure of irrigation availability derived from the Department of Conservation = s Important Farmland Map for Yolo County. The Site Assessment factors include measurements of parcel size, proximity to built-up areas and the potential for urban conflict, and the zoning designations of all parcels directly adjacent to the parcel in question.

The following text provides specific instructions for the actual measurement and weighting of each of these factors that were developed following field-testing of the Model on selected parcels throughout Yolo County.

II. Required Resources and Information

The Yolo County Land Evaluation and Site Assessment (LESA) model requires a series of straightforward measurements and calculations to score a given project. Listed below are the materials that will generally be needed to make these determinations.

A. Land Evaluation calculations require:

- An accurate map of the project, such as a **parcel map**. Parcel map books are available for review at the Yolo County Planning Department.
- A **Yolo County Important Farmland Map** produced biennially by the California Department of Conservation (DOC). These maps are available upon request from DOC, and are also available for review at the Yolo County LAFCO and Farm Bureau offices.
- The **Soil Survey of Yolo County**, California (USDA Soil Conservation Service, 1971), available for review at the Natural Resources Conservation Service, UC Davis = Shields Library, etc.
- A **planimeter** for making acreage determinations of irregularly shaped units.
- A **Land Evaluation Worksheet** (included in the Appendix).

B. Site Assessment calculations require:

- A photocopy of the appropriate page from the **Yolo County Addressing System**.
- Access to current **zoning maps**. These are available in the Yolo County Planning Department.
- A **planimeter**, **compass** and **engineer=s scale**.
- A **Site Assessment Worksheet** (included in the appendix).

Additionally, the Yolo County Planning Department has developed a county Geographic Information System (GIS) that includes considerable land resource information. The GIS has the capability to calculate many of the specific acreage figures that are needed to operate the Yolo County LESA Model, thereby simplifying the procedure for obtaining a LESA score for a given project.

III. Yolo County LESA Factor Scoring

A. Scoring of Land Evaluation Factors

The Yolo County LESA includes three Land Evaluation factors that are separately rated:

1. Land Capability Classification Rating
2. Storie Index Rating
3. Irrigated Farmland Rating

Identifying A Project = s Soils

In order to utilize the Land Capability Classification and Storie Index factors in the Yolo County LESA Model, it is first necessary to identify the soils that exist on a given project and determine their relative proportions. A Land Evaluation Worksheet (included in Appendix A) is utilized to tabulate these figures, based upon the following instructions:

1. Locate the project on the appropriate map sheet in the Soil Survey.
2. Photocopy the map sheet or trace the project boundaries and the soil series map unit polygons and symbols (see p. A2) from the Soil Survey of Yolo County. Clearly delineate the project boundaries. [This process is fairly easy since the parcels are usually farmed in such a way that they have a distinct outline in the aerial photo that matches the parcel outline. If it is too difficult to distinguish the project boundaries on the map, they will have to be measured, paying close attention to the map scale.]
3. Use the planimeter directly on the photocopied or traced map to determine the percentage of the area represented by each soil type (each soil type will have a different map unit symbol). {Trace each map unit with the planimeter three times and then average the area measured. It is important that the appropriate scale conversion be set on the planimeter, and that measurements be made in the unit of acres]
4 Identify all of the soil types contained within the project and enter the corresponding map unit symbol for each of these in Column A of the Land Evaluation Worksheet.
5. Calculate the area of each soil type with the planimeter and enter the acreage figure in Column B of the Worksheet.
6. Sum Column B to get the total area of the project and enter this amount in the box at the bottom. Cross check the sum by calculating the total area with the planimeter. (Note: This figure should also be close to the size designated on the parcel map.)
7. Divide the area of each soil type by the total are to get the percentage of each soil type that comprises the project. Enter the percentages in Column C. They should add up to 100%.

The Land Capability Classification Rating

1 In the Guide to mapping units, following page 102 in the Soil Survey of Yolo County, identify the Land Capability Classification (LCC) designation (e.g., IV-e) for each soil type that has been identified in the project, and enter it in column D of the Land Evaluation Worksheet.

2. Table 1 provides a conversion of the Land Capability Classification to a numeric score, based upon 100 points. Determine the Land Evaluation point value for each LCC from Table 1 for each soil type. Enter these point values in Column E of the Land Evaluation Worksheet.

Table 1. Conversion of Land Capability Classification units

LCC	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VI	VII	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

3. Multiply the percentage of each soil type (Column C) by the LCC points (column E) and enter the results in Column F.

4. Sum the points in Column F to obtain a single LCC score for the project.

The Storie Index Rating

1. As is done with the Land Capability Classification Rating, find the Storie Index Rating (SIR) for each soil type in the Guide to mapping units, following page 102 in the Soil Survey of Yolo County. Enter these numeric ratings in Column G of the Land Evaluation Worksheet.
2. Multiply the percentage of each soil type (Column C) by the SIR (Column G) and enter the value in Column H.
3. Sum the points in Column H to get a single SIR score for the project.

The Irrigated Farmland Rating

Under the Important Farmland protocols that have been created, lands that are identified as being either Prime Farmland or Farmland of Statewide Importance, must by definition have ben irrigated during the previous four years (Important Farmland maps are updated every two years). In this way, the Yolo County Important Farmland Map can be utilized as an easy and straightforward way of identifying irrigated croplands.

1. Utilizing the Yolo County Important Farmland Map locate and delineate the project boundaries.
2. Estimate if >50% or <50% of the project perimeter is bordered by irrigated farmland, denoted by the symbols P and S for Prime Farmland and Farmland of Statewide Importance, respectively. [Only Prime Farmland and Farmland of Statewide Importance are considered to be irrigated in this model].
3. Estimate the percentage of the project itself that is irrigated (the percentage of the project that is defined as Prime Farmland or Farmland of Statewide Importance), utilizing a planimeter or other method.
4. Utilizing Table 2, determine the Irrigated Farmland Rating for the project, and enter this figure on the Land Evaluation Worksheet.

Table 2. Irrigated Cropland Rating

Percentage of project that is irrigated	Score if >50% surrounded by irrigated farmland	Score if <50% surrounded by irrigated farmland
75-100	100	100
50-74	80	60
1-49	80	40
0	80	0

B. Scoring of Site Assessment Factors

The Yolo County LESA Model includes three Site Assessment Factors that are separately scored:

1. Project Size Rating
2. Separation from Urban Conflict Rating
3. County Zoning Rating

A Site Assessment Worksheet is included in the Appendix to facilitate the scoring of these factors.

The Project Size Rating

1. Utilizing the same information collected for the different soil types identified for a given project (tabulated in Column C of the Land Evaluation Worksheet), determine the total acreage in each of three subsets: Class I and II soils; Class Iii soils; and Class IV or lower soils as defined by USDA LCC. Enter the acreage figures for each subset in the appropriate space on the Site Assessment Worksheet.
2. Use Table 3 to assign a point score for each of the three subsets of soils that may be found to exist in a given project. Determine which subset yields the highest score. This figure is used as the Project Size Rating, and is entered in the Site Assessment Worksheet. [For example, a given project may consist of 100 total acres, 50 of which are LCC Class I and II soils, and the remaining 50 being LCC Class III soils. In this case, the Class I and II soils would yield a score of 80 points, while the Class III soils would yield a score of 60 points. The higher score is created by the Class I and II soils, and this score (80 points) is the one that is then used to define the Project Size Rating for this project.]

Table 3. Project Size Scores

Class I and II		Class III		Class IV or Lower	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-80	90	120-160	90	240-320	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
<10	0	20-39	30	<40	0
		10-19	10		
		<10	0		

The Urban Separation Rating

The percentage of the area (acreage) of a project that is beyond 500 feet of groups of 5 or more residential units is used as a measure of a project=s separation from urban areas and potential urban conflict.

1. Locate the appropriate quadrant/s (i.e., N19) for the project on the **Yolo County Addressing System Field Binder Master Key**, in the appendix of this Manual.
2. Obtain a photocopy of the necessary page/s from the Yolo County Planning Department (quadrant N19 is Page N19). Sometimes an inset is needed as well.
3. Draw the boundaries of the project on the map. Locate all the cluster of 5 or more residential units within 500 feet of the edges of the project. Use a compass or engineer = s scale to delineate the entire project that is within 500 feet of the edges of the units.
4. Using a planimeter, calculate the ratio of the project = s area that is *outside* of the 500 foot delineation compared to the total project area. Multiply by 100 to obtain the Urban Conflict Rating, and enter this figure in the Site Assessment Worksheet. [For example, a project with 90% of it = s area *outside* the 500 foot delineation would receive an urban conflict score of 90.] Simply stated, a high score under the Urban Separation Rating is the result of a low proportion of a site being in close proximity to residential areas.

The County Zoning Rating

1. Use the parcel map/s to help locate the project on the county zoning maps maintained by the Yolo County Planning Department. Determine whether or not the project is zoned AP. Identify the zoning of all of the parcels that are immediately adjacent to the project. Note exactly where the zoning changes occur along the project perimeter.
2. Measure the perimeter of the project and determine the proportion of the perimeter that is immediately adjacent to AP zoned parcels.
3. Calculate the ratio of the portion of the perimeter adjacent to AP zoning to the entire perimeter.
3. Derive the County Zoning Rating from Table 4.

Table 4. County Zoning Rating Scores

Project Zoning	Perimeter Zoning	Zoning Score
Zoned AP	≥75% of perimeter zoned AP	100
Zoned AP	50-74% of perimeter zoned AP	75
Zoned AP	≤49% of perimeter zoned AP	50
not zoned AP	≥75% of perimeter zoned AP	100
not zoned AP	50-74% of perimeter zoned AP	50
not Zoned AP	≤ 49% of perimeter zoned AP	0

IV. Weighting of Land Evaluation and Site Assessment Factors

Each of the Land Evaluation and Site Assessment factors is rated on a separate 100 point scale. Once this rating has been completed, the factors are weighted to define their relative significance in creating a single LESA score for a given project.

Individual Factor Weights

Each of the Yolo County LESA factors has been weighted according to the following:

Land Evaluation Factors

Land Capability Classification	20%
Storie Index	20%
Water	10%
Land Evaluation Subtotal	50%

Site Assessment Factors

Project Size	20%
Urban Separation	15%
County Zoning	15%
Site Assessment Subtotal	50%
Total LESA Factor Weighting	100%

In the Yolo County LESA, weighting is equally divided between the Land Evaluation factors and the Site Assessment factors (each represents 50% of the total score). For a given project, each factor = s previously derived score is multiplied by the assigned weighting. The summation of each of these six weighted scores yields a single LESA score for the project, based upon the 100-point scale.

V. Thresholds

The Yolo county LESA Model provides scoring thresholds that can divide agricultural land resources into four basic categories. These thresholds have been based on extensive field testing of the Model in Yolo County. The grouping are the following:

>75 Points:	Tier 1 Agricultural Resource - the very highest agricultural importance
60-74 Points	Tier 2 Agricultural Resource - high agricultural importance
40-59 Points	Tier 3 Agricultural Resource - moderate agricultural importance
<40 Points	Tier 4 Agricultural Resource - low agricultural importance

These thresholds are best suited for analysis of broad land use designations, such as those made under sphere of influence studies. For more specific parcel by parcel studies, such as for consideration of annexations, LESA thresholds that are based upon the individual LE an SA scores may be in order. In this way, given project would need to attain minimum score under both the LE and SA scores, in addition to the cumulative score. This reduces the likelihood of the skewing of scores (e.g. project with receiving score of 60, but with LE and SA sub-scores of 10 and 50).

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VI. Appendix

Appendix 1 - Samples of Needed Base Information for LESA Rating

1. Zoning Map Designations
2. Soil Survey Map and Associated Data
3. Addressing Page

Appendix 2 - Example of completed LESA Rating Worksheets

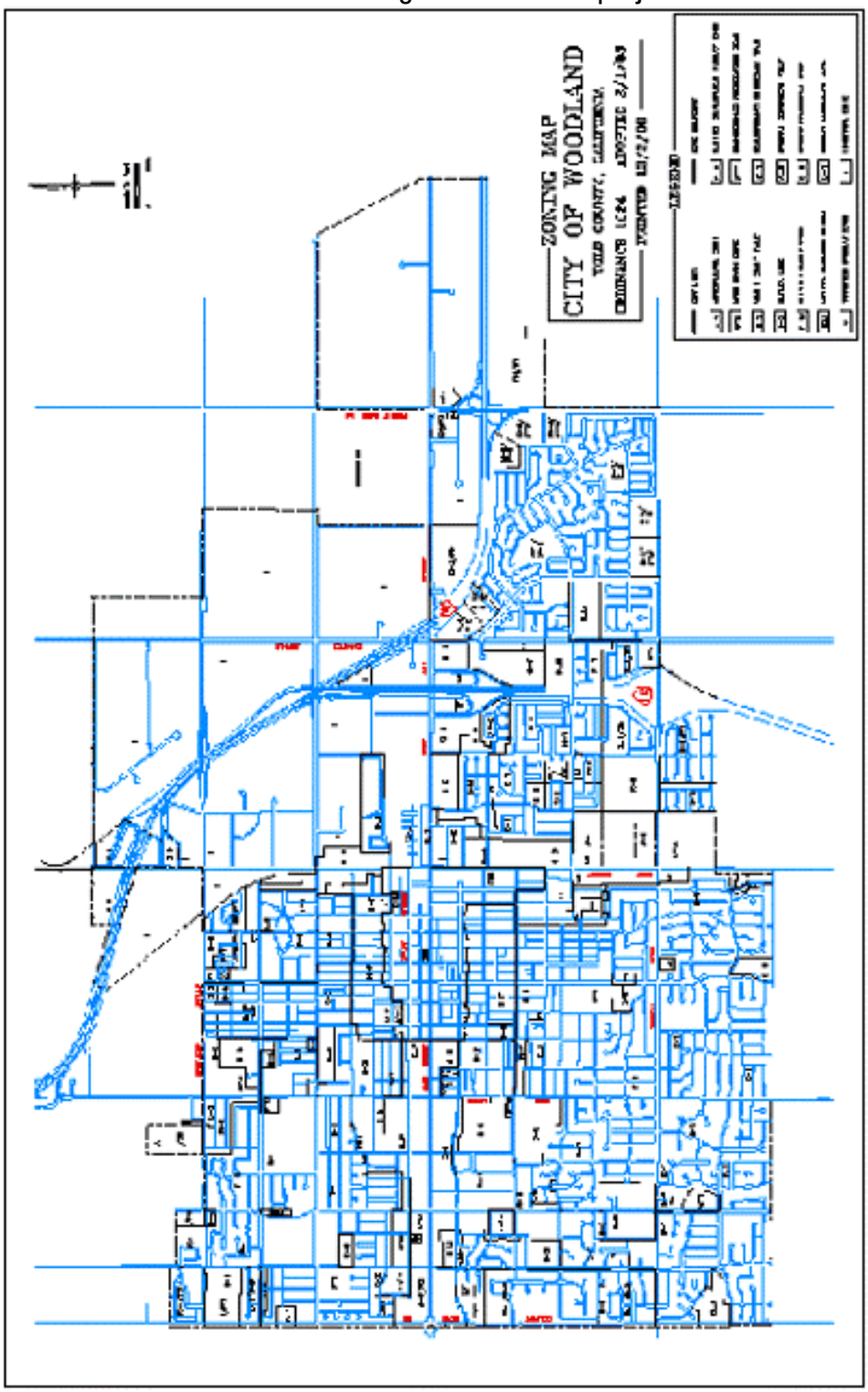
1. Land Evaluation Worksheet
2. Site Assessment Worksheet
3. Combined LESA Score Sheet

Appendix 3 - Blank LESA Worksheets

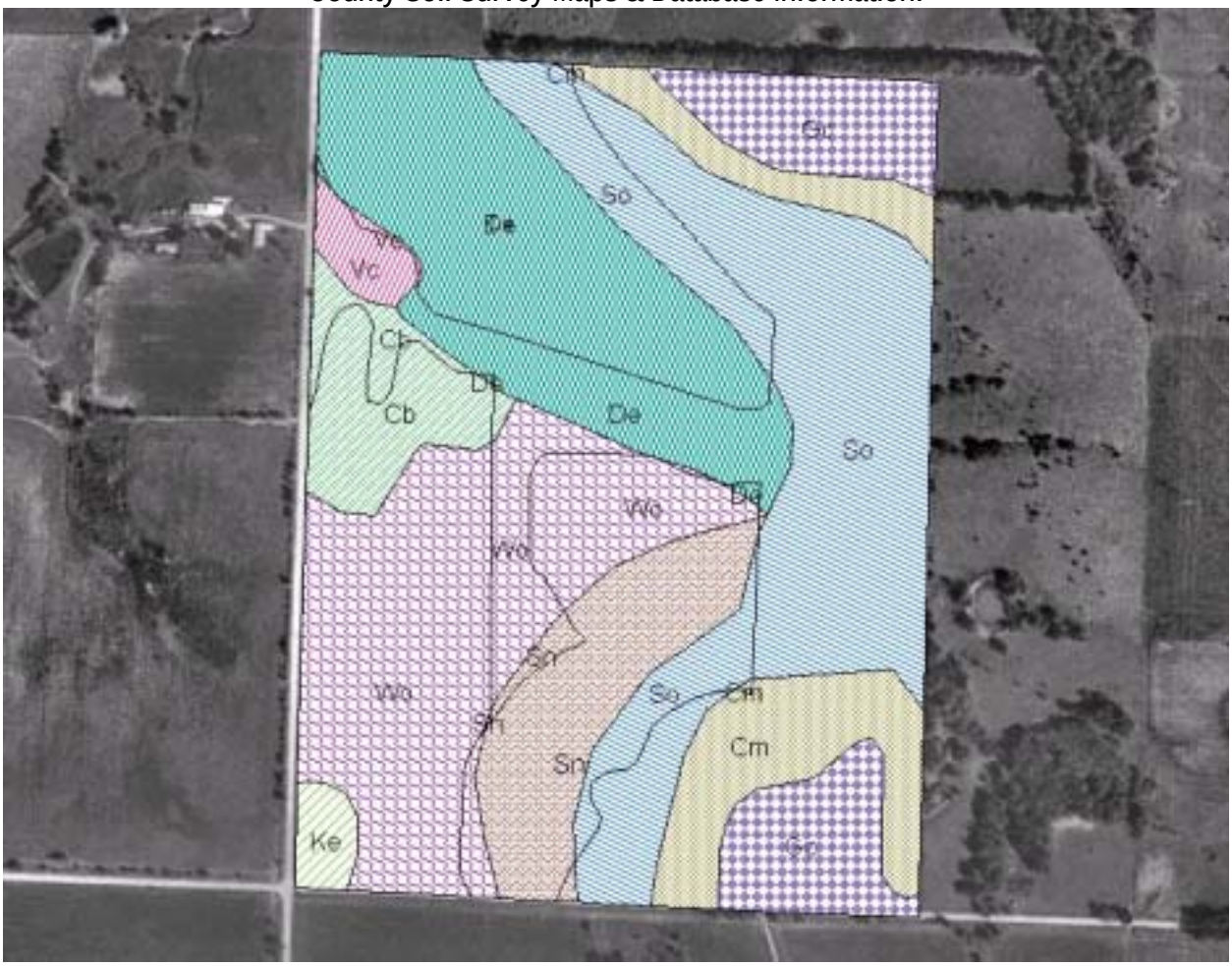
1. Land Evaluation Worksheet
2. Site Assessment Worksheet
3. Combined LESA Scoring Sheet

Appendix 1

General Plan and Zoning Information for project area:



County Soil Survey Maps & Database Information:



Storie Index Rating 1

The soils of Yolo County are rated according to the Storie index (22) in the "Guide to Mapping Units" at the back of this survey. This index expresses numerically the relative degree of suitability, or value, of a soil for intensive agriculture. The rating is based on soil characteristics only. It does not take into account other factors, such as availability of water for irrigation, climate, and distance from markets, which might determine the desirability of growing specific crops in a given locality. For these reasons, the index, in itself, cannot be considered an index for land valuation.

Four factors that represent the inherent characteristics and qualities of the soil are considered in the index rating. Each factor is rated or evaluated separately in terms of percentage of the ideal, or 100 percent. The factors are:

Factor A, Profile characteristics. Factor A expresses relative suitability of a profile for the growth of plant roots. Soils that have deep permeable profiles are rated 100 percent. Those that have a dense clay layer or a hardpan or are shallow over bedrock are rated less than 100 percent. The rating depends upon the extent to which root penetration is limited.

Factor B, Texture of the surface layer. Factor B is rated according to the texture of the surface layer, which affects the ease of tillage and the capacity of the soil to hold water. The moderately coarse and medium textures-fine sandy loam and silt loam-are the most desirable and are rated as 100 percent. The coarser and finer textures, such as sand and clay, are rated less than 100 percent.

Factor C, Slope. Factor C is particularly important if the soil is irrigated. The amount of water that runs off a soil and its susceptibility to erosion are influenced by the slope of the soil. Smooth, nearly level or very gently sloping soils are rated 100 percent. The rating decreases as the slope increases.

Factor X, Other conditions. Factor X is used to evaluate any limitations to use of the soil, such as poor drainage or a high water table, erosion, salts, or alkali, low fertility, acidity, or unfavorable microrelief. If more than one limitation exists, the values of each are multiplied together to get the X factor.

The index rating of a. soil is obtained by multiplying the four factors A, B, C, and X; thus, any one f actor may dominate or control the final rating. For example, a soil may have an excellent profile justifying a rating of 100 percent for factor A, excellent -texture of the surface layer justifying 100 percent for factor B, a smooth, nearly level surface justifying 100 percent for factor C, but a high accumulation of salts or alkali that would give a rating of 20 percent for factor X. Multiplying these four ratings gives an index rating of 20 for this soil. The high accumulation of salts or alkali dominates, makes the soil unproductive for crops, and justifies the low index rating of 20.

Soils are placed in grades according to their suitability for agricultural use as shown by their Storie index ratings. The six grades and their range in index ratings are:

	Index rating
Grade 1	8O to 100
Grade 2	60 to 80
Grade 3	40 to 60
Grade 4	20 to 40
Grade 5	10 to 20
Grade 6	Less than 10

Soils of grade 1 have few or no limitations that restrict their use for crops. Soils of grade 2 are suitable for most crops, but they have minor limitations that narrow the choice of crops and have few special management needs. Grade 3 soils are suited to a few crops or to special crops and require special management. Grade 4 soils are severely limited for crops. If used for crops, they require careful management. Grade 5 soils are not suited to cultivated crops but can be used for pasture and range. Grade 6 consists of soils and land types that generally are not suited to farming.

1 Ratings by E. L. **BEGG,** soil specialist, University of California, Davis.

APPENDIX 2 - EXAMPLE

Yolo County LESA Model - Land Evaluation Worksheet

(See Yolo LESA narrative for detailed scoring instructions)

Name of Project: ___WILDHORSE (Predevelopment Proposal)_____

1. Land Capability Classification, and 2. Storie Index Scoring:

A	B	C	D	E	F	G	H
Soil Type (Map Unit)	**Area**	**% (B/total area)**	**LCC**	**LCC pts**	**LCC Score (C * E)**	**SIR**	**SIR Score (C * G)**
Pb	**3.5**	**.01**	**IVw**	**40**	**0.4**	**14**	**0.14**
Ra	**13.0**	**.03**	**I**	**100**	**3.0**	**100**	**3.00**
Sp	**41.3**	**.10**	**I**	**100**	**10.0**	**90**	**9.00**
St	**95.4**	**.22**	**I**	**100**	**22.0**	**77**	**16.90**
Tc	**6.0**	**.01**	**I**	**100**	**1.0**	**81**	**0.81**
Ya	**196**	**.46**	**I**	**100**	**46.0**	**100**	**46.0**
Yb	**70**	**.17**	**I**	**100**	**17.0**	**90**	**15.3**
Total Area:	**425 Ac**			**LCC Score**	**99.40**	**SIR Score**	**91.20**

LCC Point Assignment Table:

LCC	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VI	VII	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

3. Irrigated Farmland Scoring:

Total area of project:——————————__425_ (a)
Area of project that is irrigated:——————————__425_ (b)
(b)/(a) x 100 = :——————————__100_ % of the project that is irrigated
Length of project perimeter:——————————__13.5"_(c) (measured from map scale)
Length of perimeter adjacent to irrigated farmland: __7"__ (d) (measured from map scale)
(d)/(c) x 100 =: ——————————__52__ % surrounded by irrigated farmland
(See table below for appropriate irrigated Farmland Score:)

Irrigated Farmland Score:___100___

% of project that is irrigated	Score if ≥ 50% surrounded by irrigated farmland	Score if < 50% surrounded by irrigated farmland
75 - 100	100	100
50 - 74	80	60
1 - 49	80	40
0	80	0

Yolo County LESA Model - Site Evaluation Worksheet

(See Yolo LESA narrative for detailed scoring instructions)

Name of Project: _____ WILDHORSE (Predevelopment Proposal)_____

1. Project Size:

	Acres	Earned Points
Class I and II Acres	421.5	100
Class III Acres	0	0
Class IV or lower Acres	3.5	0
Totals:	425 Ac.	100

Project Size Score: _100__

Project Size Scoring Table:

Class I & II Acres		Class III Acres		Class IV or Lower	
Acreage	Points	Acreage	Points	Acreage	Points
> 80	100	>160	100	>320	100
60-80	90	120-160	90	240-320	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
< 10	0	20-39	30	< 40	0
		10-19	10		
		< 10	0		

2. Urban Separation:

Area of project not in urban conflict) ÷ (Total area of project) x 100 = Separation from Urban Conflict Score:

(_319_) ÷ (_425_) X 100 = Urban Separation Score = __75__ (For this project)

3. County Zoning:

Is project, or portion of project, Zoned AP (Agricultural Preserve - Y/N)?——__No__

Total length of project perimeter:————————————————_13.5"_ (a)

Length of perimeter directly adjacent to AP Zone:————————————_3.25"_ (b)

(b) ÷ (a) x 100 = (% of perimeter Zoned AP)————————————————_24___ % of AP perimeter

(See table below to assign appropriate Zoning score.)

County Zoning Score: ____0___

County Zoning Score Table:

Project Zoning	Perimeter Zoning	Zoning Score
Zoned AP	≥ 75% of perimeter Zoned AP	100
Zoned AP	50% - 74% of perimeter Zoned AP	75
Zoned AP	≤ 49% of perimeter Zoned AP	50
Not Zoned AP	≥ 75% of perimeter Zoned AP	100
Not Zoned AP	50% - 74% of perimeter Zoned AP	50
Not Zoned AP	≤ 49% of perimeter Zoned AP	0

Yolo County LESA Model

Combined Land Evaluation and Site Assessment
Project Score Sheet

Name of Project: _____ WILDHORSE (Predevelopment Proposal)_____

Evaluation Factors:	Score	Weight		Weighted Score
Land Evaluation Scores:				
Land Capability Classification:	**99**	**X (0.20)**	**=**	**19.8**
Storie Index Rating:	**91**	**X (0.20)**	**=**	**18.2**
Irrigated Farmland Score:	**100**	**X (0.10)**	**=**	**10.0**
Site Assessment				
Project Size Score:	**100**	**X (0.20)**	**=**	**20.0**
Separation from Urban Conflict Score:	**75**	**X (0.15)**	**=**	**11.3**
County Zoning Score:	**0**	**X (0.15)**	**=**	**0**
(Sum the above weighted scores to obtain the Total LESA Score)	**Total LESA Score:**			**79.3**

Worksheet Completed By: ___Phil Hogan_____ Title: __District Conservationist____

Address:_____ Phone: _____

_____ Fax: _____

email: ____Phil.Hogan@ca.usda.gov_____ Date: _____

APPENDIX 3 - Blank LESA Worksheet

1. Land Evaluation Worksheet
2. Site Assessment Worksheet
3. Combined LESA Scoring Sheet

Yolo County LESA Model - Land Evaluation Worksheet

(See Yolo LESA narrative for detailed scoring instructions)

Name of Project: _____

2. Land Capability Classification, and 2. Storie Index Scoring:

A	B	C	D	E	F	G	H
Soil Type (Map Unit)	**Area**	**% (B/total area)**	**LCC**	**LCC pts**	**LCC Score (C * E)**	**SIR**	**SIR Score (C * G)**
Total Area:				**LCC Score**		**SIR Score**	

LCC Point Assignment Table:

LCC	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VI	VII	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

4. Irrigated Farmland Scoring:

Total area of project:_____ _____ (a)

Area of project that is irrigated:_____ _____ (b)

(b)/(a) x 100 = :_____ _____ % of the project that is irrigated

Length of project perimeter:_____ _____ (c)

Length of perimeter adjacent to irrigated farmland: _____ (d)

(d)/(c) x 100 =: _____ _____ % surrounded by irrigated farmland

(See table below for appropriate irrigated Farmland Score:)

% of project that is irrigated	Score if ≥ 50% surrounded by irrigated farmland	Score if < 50% surrounded by irrigated farmland
75 - 100	100	100
50 - 74	80	60
1 - 49	80	40
0	80	0

Yolo County LESA Model - Site Evaluation Worksheet

(See Yolo LESA narrative for detailed scoring instructions)

Name of Project: _____

4. Project Size:

	Acres	Earned Points
Class I and II Acres		
Class III Acres		
Class IV or lower Acres		
Totals:		

Project Size Score: _____

Project Size Scoring Table:

Class I & II Acres		Class III Acres		Class IV or Lower	
Acreage	Points	Acreage	Points	Acreage	Points
> 80	100	>160	100	>320	100
60-80	90	120-160	90	240-320	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
< 10	0	20-39	30	< 40	0
		10-19	10		
		< 10	0		

5. Urban Separation:

Area of project not in urban conflict) ÷ (Total area of project) x 100 = Separation from Urban Conflict Score:

(_____) ÷ (_____) X 100 = Urban Separation Score = _____ (For this project)

6. County Zoning:

Is project, or portion of project, Zoned AP (Agricultural Preserve - Y/N)?——_____

Total length of project perimeter:——————————————_____ (a)

Length of perimeter directly adjacent to AP Zone:——————————————_____ (b)

(b) ÷ (a) x 100 = (% of perimeter Zoned AP)——————————————_____ % of AP perimeter

(See table below to assign appropriate Zoning score.)

County Zoning Score: _____

County Zoning Score Table:

Project Zoning	Perimeter Zoning	Zoning Score
Zoned AP	≥ 75% of perimeter Zoned AP	100
Zoned AP	50% - 74% of perimeter Zoned AP	75
Zoned AP	≤ 49% of perimeter Zoned AP	50
Not Zoned AP	≥ 75% of perimeter Zoned AP	100
Not Zoned AP	50% - 74% of perimeter Zoned AP	50
Not Zoned AP	≤ 49% of perimeter Zoned AP	0

Yolo County LESA Model

Combined Land Evaluation and Site Assessment
Project Score Sheet

Name of Project: _____

Evaluation Factors:	**Score**	**Weight**		**Weighted Score**
Land Evaluation Scores:				
Land Capability Classification:		**X (0.20)**	**=**	
Storie Index Rating:		**X (0.20)**	**=**	
Irrigated Farmland Score:		**X (0.10)**	**=**	
Site Assessment				
Project Size Score:		**X (0.20)**	**=**	
Separation from Urban Conflict Score:		**X (0.15)**	**=**	
County Zoning Score:		**X (0.15)**	**=**	
(Sum the above weighted scores to obtain the Total LESA Score)		**Total LESA Score:**		

Worksheet Completed By: _____ Title: _____

Address:_____ Phone: _____

_____ Fax: _____

email: _____ Date: _____

Appendix 4 - Resource Information

Resources By State

California

Census of Agriculture	1997	1982	1987	1992
Farms (number)	74,126	82,463	83,217	77,669
Land in Farms (acres)	27,698,779	32,156,894	30,598,178	28,978,997
Average Size of Farm (acres)	374	390	368	373
Median Sized of Farm (acres)	28	N/a	N/a	N/a
Farms By Size (acres)				
1 to 9	20,662	22,951	22,697	21,485
10 to 49	24,250	28,203	28,498	26,089
50 to 69	3,732	4,204	4,352	4,000
70 to 99	3,784	4,255	4,252	3,934
100 to 139	3,224	3,606	3,612	3,352
140 to 179	2,548	2,808	2,801	2,597
180 to 219	1,660	1,764	1,878	1,799
220 to 259	1,283	1,367	1,475	1,259
260 to 499	4,327	4,505	4,675	4,454
500 to 999	3,572	3,635	3,804	3,702
1,000 to 1,999	2,439	2,435	2,544	2,411
2,000 or more	2,645	2,730	2,629	2,587
Approx. Land Area (acres)	99,822,871	100,031,366	100,031,366	99,822,871
Approx. Land Area, Proportion in Farm (%)	27.7	32	31	29
Market Value of Agricultural Products Sold ($1,000)*	23,032,259*	12,491,442*	13,922,234*	17,051,912*
Market Value of Ag. Products Sold - Avg. per Farm Dollars*	310,718*	151,479*	167,300*	219,546*
Operators by principle occupation - Farming	39,267	40,633	41,906	40,215
Land under CRP or WRP (farms)	973	N/a	346	618
Land under CRP or WRP (acres)	226,522	N/a	163,686	198,981

*NOTE: Dollar values have NOT been adjusted to reflect changes over time.

From 1997 Census of Agriculture and Historical Census of Agriculture.
Table 1: State Summary Highlights
Table 6: Farms, Land in Farms, Value of Land and Buildings, and Land Use

University of California
Agricultural Issues Center

The Measure of California Agriculture, 2000

Revised, updated and expanded from *The Measure of California Agriculture: Its Impact on the State Economy*, December, 1998, by Harold O. Carter and George Goldman.

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November 2000

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The Measure of California Agriculture, 2000 - Kuminoff, Nicolai V. and Daniel A. Sumner with George Goldman

The Measure of California Agriculture, 2000

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The Measure of California Agriculture, 2000

California Farms and Farmers

Over a quarter of California's landmass is used for agriculture. Just over half of the 27.7 million acres of agricultural land is pasture and range and about 39% is cropland. Most California farms are small in terms of cash receipts and total sales, and are family or individually operated. California has a greater share of female farm operators and farmers with Hispanic, Asian and Pacific Islander backgrounds than the United States as a whole. As the state's population has grown, agricultural land has been converted to residential, industrial and commercial uses, yet agriculture remains a vibrant industry.

Contents

I.1 Land Use

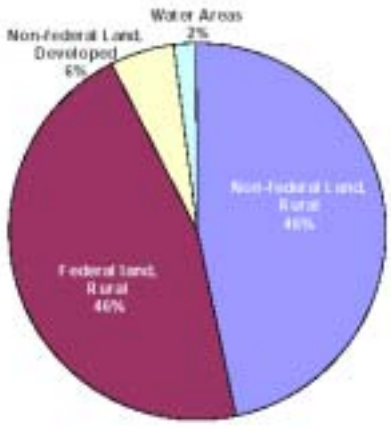
About 92% of California's 99.8 million acres is in rural uses. This rural area is divided evenly between federal and non-federal ownership. The federal land mostly includes national forest, national parks and wildlife areas, and "other land.[1]" Roughly 11% (5 million acres) of the federal rural land is grassland pasture and range used for agriculture.

---

[1] Other land is defined by the National Agricultural Statistics Service as "marshes, open swamps, bare rock deserts, rural transportation areas, defense and industrial areas, farmsteads, and farm roads and lanes."

Federal and Non-federal Land Use in California, 1997

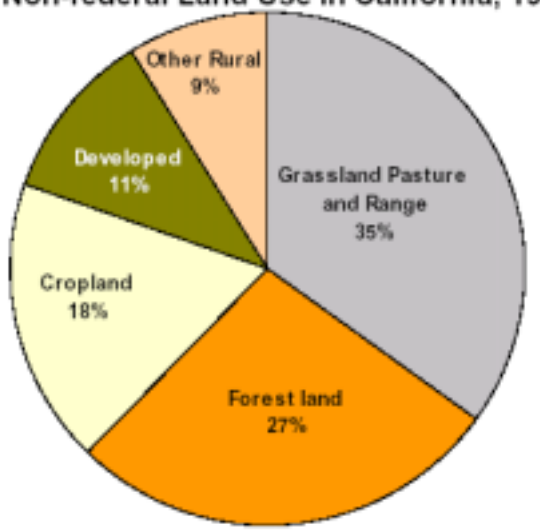
FIGURE 1



Source: USDA, Natural Resources Conservation Service, Natural Resources Inventory, 2000.

FIGURE 2

Non-federal Land Use in California, 1997



■ Of California's 53 million acres of non-federal land, about 80% is grassland pasture and range, forest land, and cropland. Most of California agriculture is located on non-federal land.

Source: USDA, National Resources Conservation Service, *Natural Resources Inventory*, 2000.

About 5.7 million acres of California's non-federal land are defined by the Natural Resources Conservation Service (NRCS) as "developed" for residential, industrial, and commercial use. However, the intensity of use varies widely, with much of this land relatively unpopulated. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) defines 3.1 million acres of California's non-federal land as "urban and built-up2". This suggests that roughly 2.6 million acres of "developed" land in the NRCS survey are still relatively rural, or not mapped by FMMP

Table 1:

Non-federal Land Developed in California (1,000 acres)

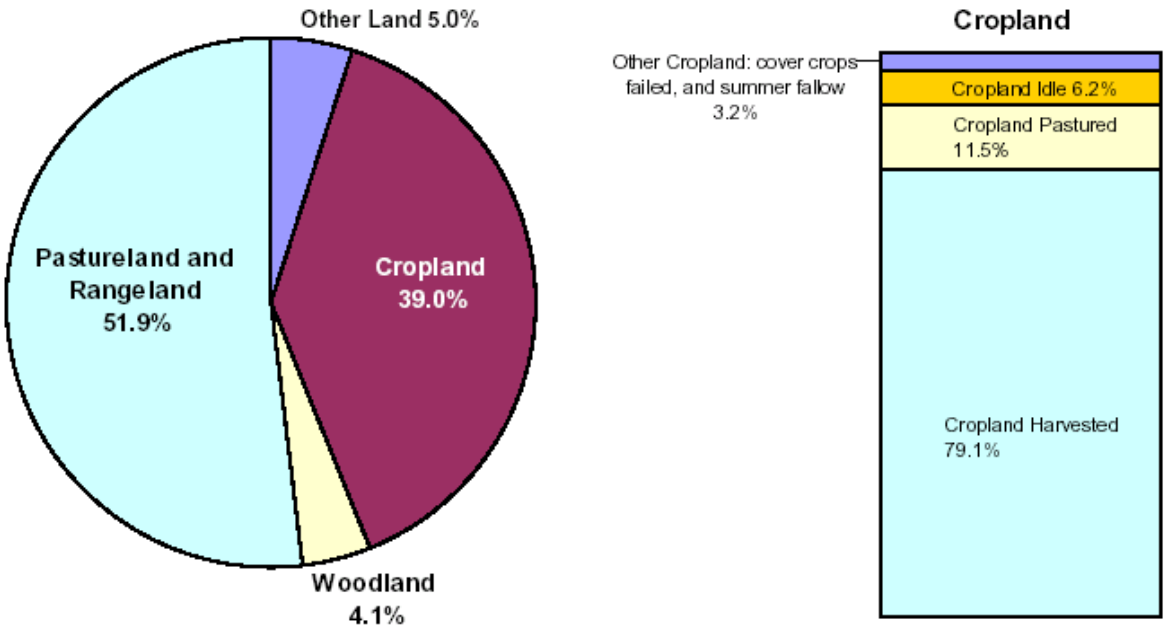
Total Non-federal Land (NRCS, 1997)	52,926
Developed Land (NRCS, 1997)	5,687
Urban and Built-up Land (FMMP, 1998)	3,079

Sources:
1. USDA, National Resources Conservation Service, Natural Resources Inventory, 2000.
2. California Department of Conservation, Farmland Mapping and Monitoring Program, 2000.

2 "Urban and Built-up" land is defined by the FMMP as land occupied by structures with a building density of at least one unit to one and one-half acres.

FIGURE 3

Agricultural Land Use in California, 1997



Source: USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

In total, about 27.7 million acres, including 5 million acres of federal grazing land, are used for agriculture in California. Over half is pasture and range, about 39% is cropland, and the remainder is divided between woodland and other land.

TABLE 2

Agricultural Land Use, 1964-1997 (1,000 acres)

Census Year	Pasture Land and Range Land	Total Cropland*	Other Land**	Woodland including Woodland Pasture	Total Agricultural Land
CALIFORNIA 99,823,000 total acres					
1964	20,450	11,815	1,343	3,403	37,012
1969	NA***	11,245	NA***	2,038	35,328
1974	NA***	10,630	NA***	1,522	33,386
1978	18,733	11,455	1,175	1,365	32,727
1982	17,980	11,257	1,437	1,483	32,157
1987	17,111	10,895	1,241	1,351	30,598
1992	16,191	10,479	1,158	1,150	28,979
1997	14,385	10,804	1,394	1,116	27,699
UNITED STATES 2,262,444,000 total acres					
1964	490,307	434,232	39,671	145,976	1,110,187
1969	NA***	458,990	NA***	112,013	1,062,893
1974	NA***	440,039	NA***	92,528	1,017,030
1978	436,729	453,874	36,733	91,815	1,014,777
1982	418,264	445,362	36,082	87,088	986,797
1987	410,329	443,318	30,929	79,894	964,471
1992	410,835	435,366	25,369	73,962	945,532
1997	396,885	431,145	32,300	71,465	931,795

*Includes harvested cropland, cropland used only for pastures, and other cropland.

**Houses and barns, lots, ponds, roads and wasteland.

***NA: In 1969 and 1974, the Census of Agriculture aggregated pastureland and other land.

Sources:

1. U.S. Bureau of the Census, *Census of Agriculture*, 1964-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

Agricultural land use in California fell by almost 10 million acres between 1964 and 1997, with much of this change coming from decreases in pasture and rangeland. Some changes may be at least partially attributed to changes in land use definitions in the *Census of Agriculture*. Cropland fell by more than one million acres from 1964 to 1974 and has fluctuated since then.

Despite its reputation as a major fruit, tree-nut and vegetable producer, California has a greater ratio of pasture and range to cropland than the United States as a whole.

TABLE 3

Agricultural Land Use, 1964-1997 (percent)

Census Year	Pasture Land and Range Land	Total Cropland*	Other Land**	Woodland including Woodland Pasture
CALIFORNIA				
1964	55.3	31.9	3.6	9.2
1969	NA***	31.8	NA***	5.8
1974	NA***	31.8	NA***	4.6
1978	57.2	35.0	3.6	4.2
1982	55.9	35.0	4.5	4.6
1987	55.9	35.6	4.1	4.4
1992	55.9	36.2	4.0	4.0
1997	51.9	39.0	5.0	4.0
UNITED STATES				
1964	44.2	39.1	3.6	13.1
1969	NA***	43.2	NA***	10.5
1974	NA***	43.3	NA***	9.1
1978	43.0	44.7	3.6	9.0
1982	42.4	45.1	3.7	8.8
1987	42.5	46.0	3.2	8.3
1992	43.5	46.0	2.7	7.8
1997	42.6	46.3	3.5	7.7

*Includes harvested cropland, cropland used only for pastures, and other cropland.
**Houses and barns, lots, ponds, roads and wasteland.
***NA: In 1969 and 1974, the Census of Agriculture aggregated pastureland and other land.

Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1964-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

California tends to harvest a greater percentage of its cropland than the United States as a whole. Between 1964 and 1997 there was a net decrease in total cropland and a net increase in harvested cropland, but both statistics fluctuated from census to census.

TABLE 4

Harvested Cropland as a Percent of Total Cropland, 1964-1997

Census Year	Total Cropland* (1,000 acres)	Harvested Cropland (1,000 acres)	Percent of Total Cropland Harvested
CALIFORNIA			
1964	11,815	7,846	66.4
1969	11,245	7,649	68.0
1974	10,630	8,307	78.1
1978	11,455	8,804	76.9
1982	11,257	8,765	77.9
1987	10,895	7,676	70.5
1992	10,479	7,761	74.1
1997	10,804	8,543	79.1
UNITED STATES			
1964	434,232	286,892	66.1
1969	458,990	273,016	59.5
1974	440,039	303,002	68.9
1978	453,874	317,146	69.9
1982	445,362	326,306	73.3
1987	443,318	282,224	63.7
1992	435,366	295,937	68.0
1997	431,145	309,395	71.8

*Includes harvested cropland, cropland idled, cropland used only for pastures, and other cropland.

Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1964-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

California's planted cropland has shifted over time toward higher value crops such as fruits, tree-nuts and vegetables while acres of field crops have decreased. Cotton, wheat and rice are notable exceptions in that harvested acreage for each increased substantially between 1964 and 1997, but peaked during census years in the late 1970's or early 1980's. Rice surpassed its 1982 acreage by about 600 acres in 2000.

TABLE 5

California Harvested Cropland by Category, Census Years 1964-1997
(1,000 acres)

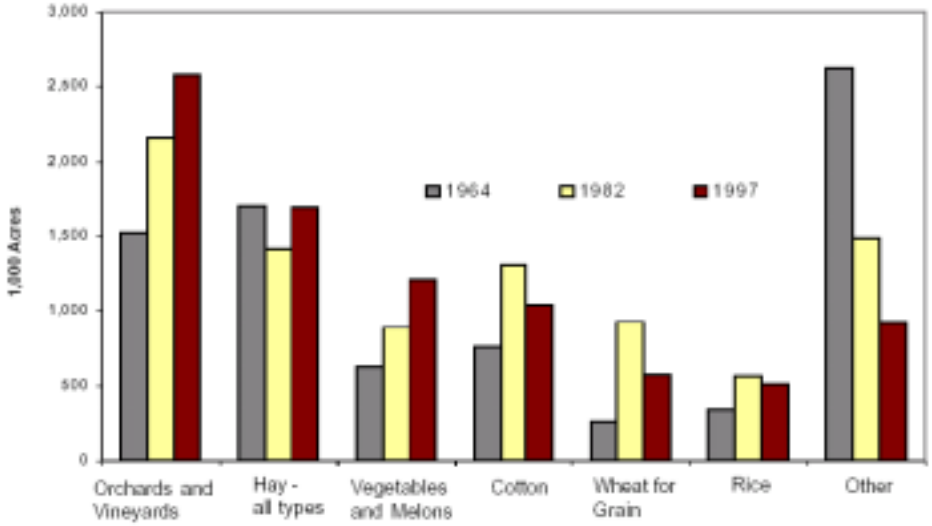
Category	1964	1969	1974	1978	1982	1987	1992	1997
Orchards and Vineyards	1,520	1,588	1,770	1,892	2,158	2,153	2,246	2,582
Hay--all types*	1,702	1,534	1,545	1,501	1,416	1,533	1,531	1,699
Vegetables and Melons	626	676	740	900	895	883	1,017	1,209
Cotton	759	663	1,150	1,518	1,313	1,084	1,066	1,036
Wheat for Grain	267	404	703	590	929	562	569	581
Rice**	343	NA	NA	485	567	399	401	514
Barley for Grain**	1,319	NA	NA	874	583	270	204	130
Nursery and Greenhouse	37	34	45	52	59	67	76	95
Other Crops***	1,273	NA	NA	992	845	725	651	697
Total Harvested Cropland	7,846	7,649	8,307	8,804	8,765	7,676	7,761	8,543

*Hay includes alfalfa, other tame, small grain, wild, grass silage, and green chop varieties.
**Acres of rice and barley were not reported in the Census of Agriculture in 1969 and 1974.
***Acres of other crops were calculated by subtracting all reported categories from Total Harvested Cropland. Other crops include corn, dry beans, peas, potatoes, seed crops, sugar beets, sweet potatoes, and other field crops.

Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1964-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

FIGURE 4

California Cropland Harvested by Crop, 1964, 1982 and 1997



Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1964 and 1982.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

Farmland Conversion:

Conversion of agricultural land to urban uses continues to be a public policy issue in the United States and in California. In California between 1988 and 1998, according to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), about 420,000 acres (approximately one half of 1% of California's landmass) were converted to urban and built-up uses. At these conversion rates, about 4.2 million acres would be converted in the next 100 years.

Of the total acres converted from 1988-1998, 166,000 were formerly cropland (about 1.5% of total cropland) and 76,000 were formerly grazing land. Another 177,000 acres were formerly "other land," as classified by the FMMP. A significant portion of the "other land" was idled farmland previously removed from agricultural production in anticipation of development. This indicates that the figures for cropland and grazing land conversion may be understated.

TABLE 6

Acres Converted to Urban and Built-up Land by Region, 1988-1998

Sacramento Valley*	Cropland**	Grazing Land	Other Land***	Total Acres Converted
1988-90	4,772	3,783	6,535	15,090
1990-92	6,450	3,088	3,421	12,959
1992-94	2,516	1,122	1,935	5,573
1994-96	2,868	2,312	2,186	7,366
1996-98	3,323	3,257	3,649	10,342
Cumulative Total	19,929	13,562	17,726	51,330

San Joaquin Valley*	Cropland**	Grazing Land	Other Land***	Total Acres Converted
1988-90	5,347	1,807	5,373	12,527
1990-92	16,940	442	6,576	23,958
1992-94	6,817	1,369	2,093	10,279
1994-96	7,867	532	2,137	10,536
1996-98	16,680	2,561	6,168	25,456
Cumulative Total	53,651	6,711	22,347	82,756

Central Valley*	Cropland**	Grazing Land	Other Land***	Total Acres Converted
1988-90	10,119	5,590	11,908	27,617
1990-92	23,390	3,530	9,997	36,917
1992-94	9,333	2,491	4,028	15,852
1994-96	10,735	2,844	4,323	17,902
1996-98	20,003	5,818	9,817	35,798
Cumulative Total	73,580	20,273	40,073	134,086

California	Cropland**	Grazing Land	Other Land***	Total Acres Converted
1988-90	40,003	20,863	57,364	118,230
1990-92	39,141	14,729	45,394	99,264
1992-94	23,453	10,464	20,390	54,307
1994-96	25,954	13,303	19,185	58,442
1996-98	37,585	17,057	34,919	89,997
Cumulative Total	166,136	76,416	177,252	420,240

* Sacramento Valley is Butte, Colusa, Glenn, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo and Yuba counties. San Joaquin Valley is Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties. Central Valley is the sum of the Sacramento and the San Joaquin Valleys.

** Cropland is defined here as all agricultural land that is not classified as grazing land by the FMMP.

*** Other land includes idle land previously removed from agricultural production.

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2000.

FIGURE 5

Conversion of All Land to Urban and Built-up Uses, 1988-1998

(There are about 99,823,000 total acres in California)

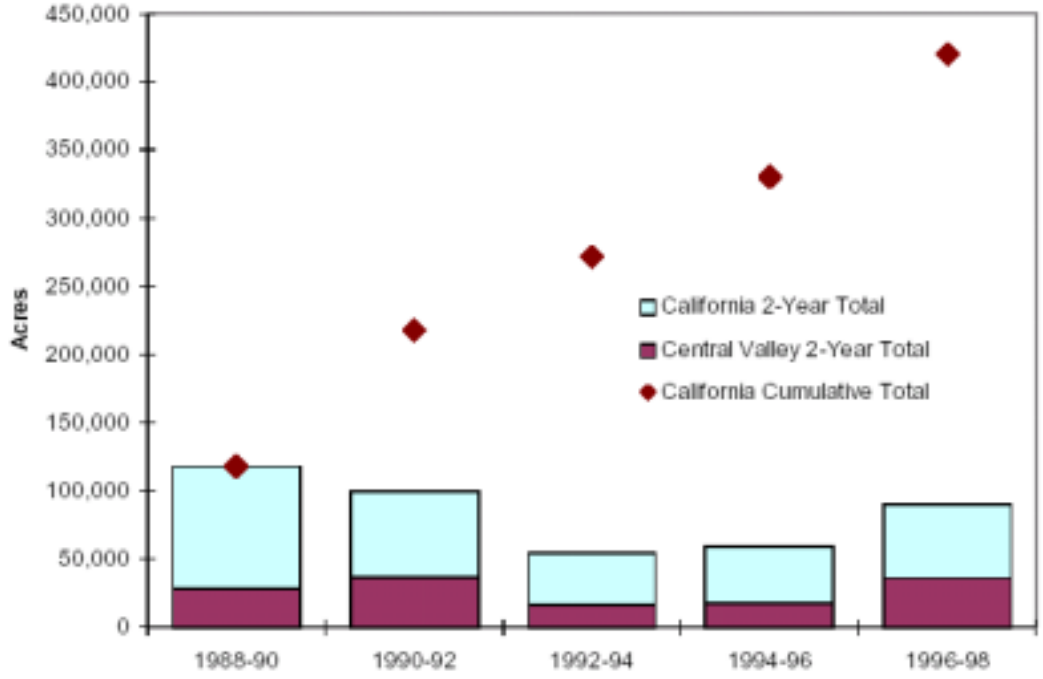
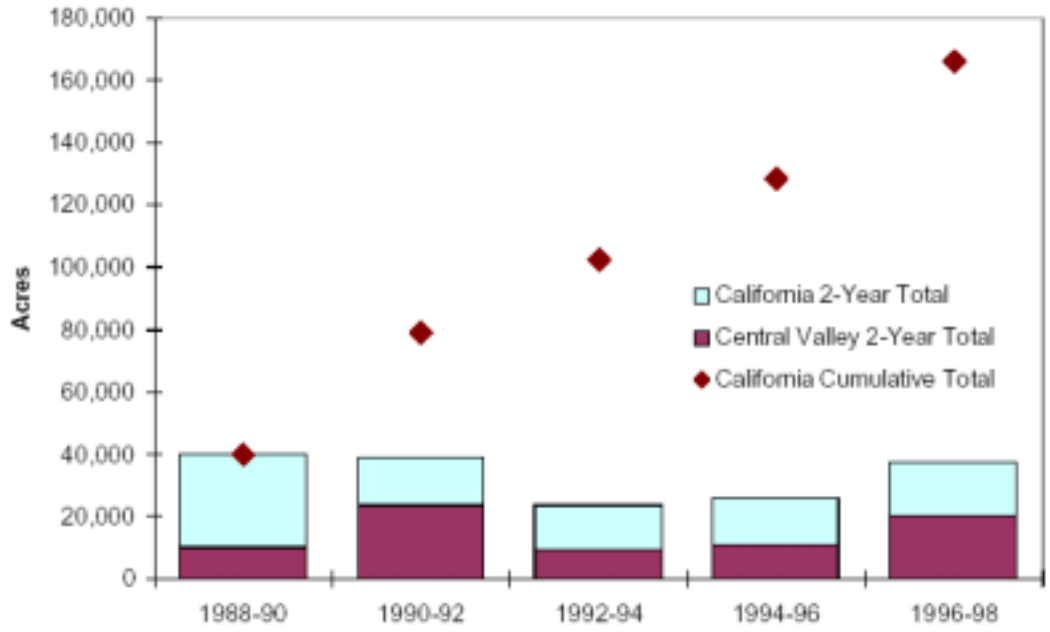


FIGURE 6

Conversion of "Cropland" to Urban and Built-up Uses, 1988-1998

(There are about 11,781,000* acres of cropland in California)



*The FMMP Reports 11,781,000 acres in 1998. The *1997 Census of Agriculture* reports 10,804,000 acres.

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2000.

Farmland conversion is a topic of particular interest in the Central Valley, which has over half of the state's agricultural land. The Central Valley has had a lower proportion of its cropland and grazing land converted than the rest of the state. The Valley, with about 64% of California's cropland, recorded 44% of statewide cropland conversion between 1988 and 1998. Similarly, Valley grazing land, about 44% of the state total, contributed only 27% of the total grazing land conversions.

TABLE 7

Land Use Recorded by the Farmland Mapping and Monitoring Program, 1998 (1,000 acres)

	California	Central Valley	Central Valley as a Percent of California
Cropland	11,781	7,496	63.6%
Grazing Land	14,986	6,530	43.6%
Urban and Built-up Land	3,079	788	25.6%
Other Land	13,550	5,305	39.2%
Total Land Inventoried	44,096	20,304	46.0%
Land Not Inventoried	55,727	6,570	11.8%
Total Land in California	99,823	26,874	26.9%

TABLE 8

Central Valley Land Converted to Urban and Built-up Uses as a Percent of California Land Conversion, 1988-1998

	Cropland	Grazing Land	Total Agricultural Land	Other Land	Total Land
1988-90	29%	27%	29%	21%	23%
1990-92	48%	24%	42%	22%	37%
1992-94	47%	24%	39%	20%	29%
1994-96	46%	21%	37%	23%	31%
1996-98	53%	34%	47%	28%	40%
Total	44%	27%	39%	23%	32%

Source: California Department of Conservation, Farmland Mapping and Monitoring Program, 2000.

Farmland conversion to urban uses is associated with population growth. California's population increased by about 71% between 1970 and 2000, while the Central Valley's population doubled. There is general agreement that state population growth will continue but little consensus on projections of future growth rates.

FIGURE 7

California Population, 1970-2000

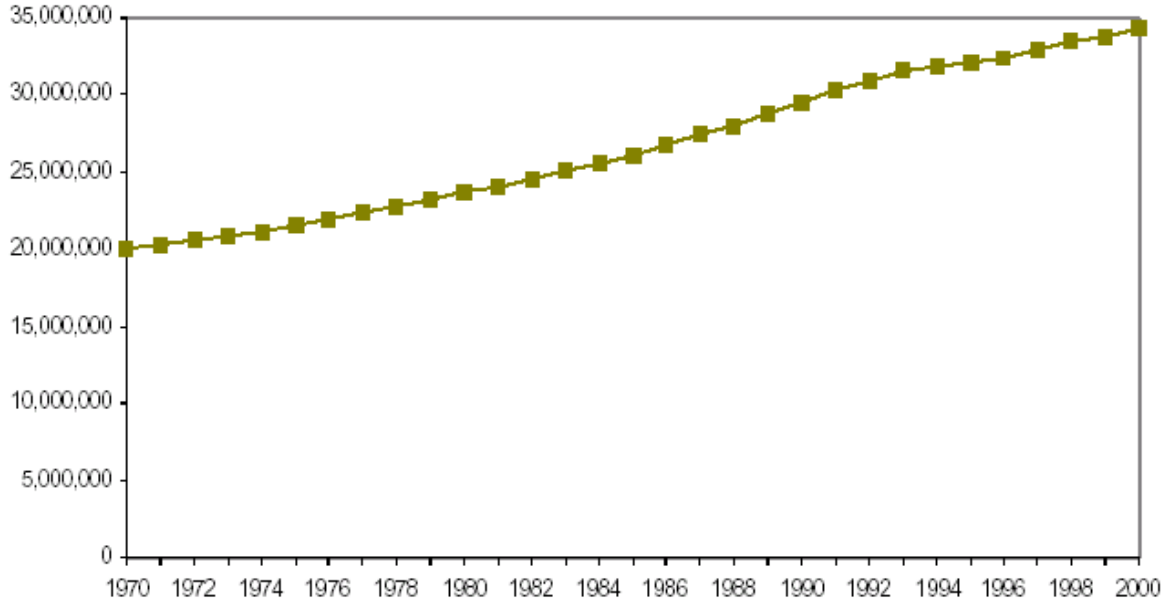
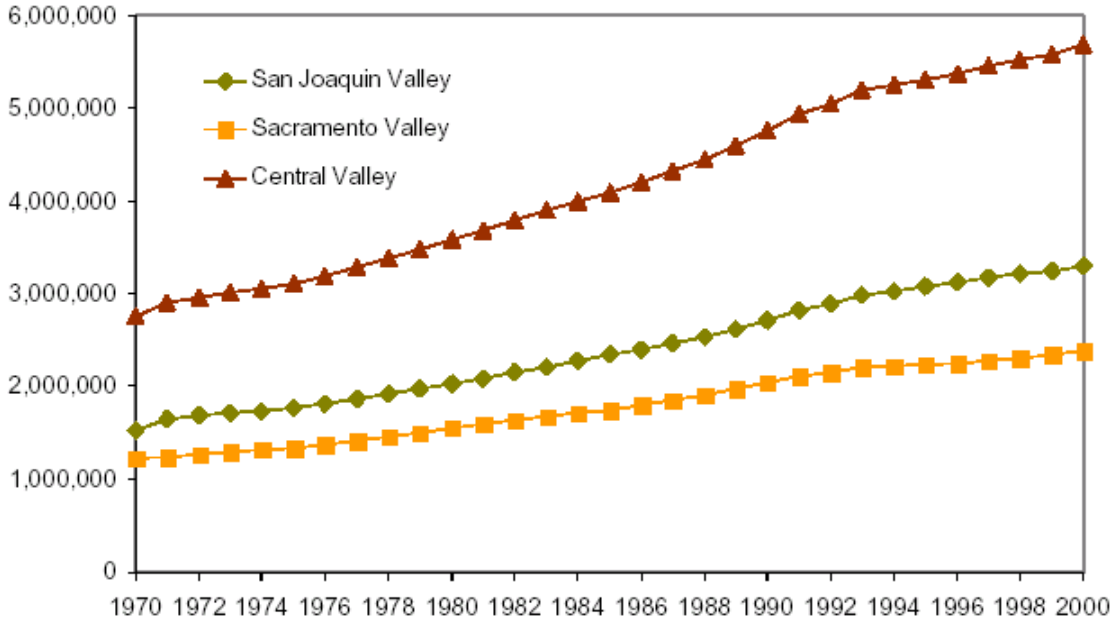


FIGURE 8

Population Growth in the Central Valley, 1970-2000



Source: California Department of Finance, County Population Projections with Race/Ethnic Detail.

Acres per Farm and Land Ownership

Nationwide, over the last half-century, the number of farms and the total land in farms have decreased, while the size of an average farm has increased. This trend has been less pronounced in California. While the average U.S. farm doubled in acreage between 1954 and 1997, the average California farm increased by about 25%. However, changes in the *Census of Agriculture's* definition of a "farm" have influenced its statistics for the number of farms and the average farm size. The definition of a farm was changed in 1954, 1959, and 1974, to remove many of the smallest "farms" from census statistics. Each of these definitional changes decreased the reported number of farms and increased the average farm size. Since 1974 a "farm" has been defined in the *Census of Agriculture* as a place that generates agricultural sales of at least $1,000 annually.

Under the current *Census of Agriculture* definition, the acreage of the average California farm decreased by 24% between 1974 and 1997.

TABLE 9

Farm Acreage, Number and Acres per Farm, 1940-1997

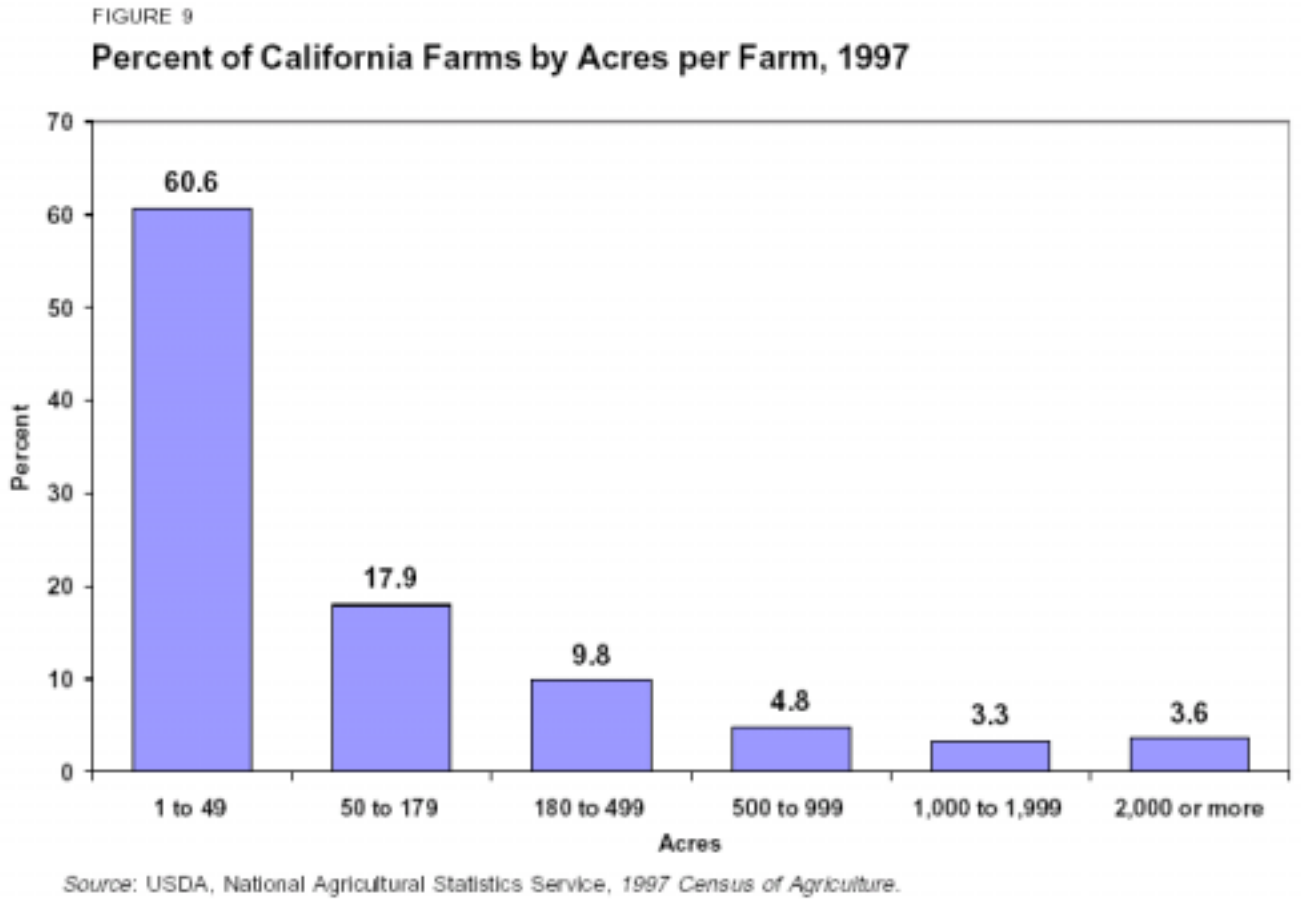
	CALIFORNIA			UNITED STATES		
Census Year	Number of Farms	Land in Farms (1,000 acres)	Average Size (acres)	Number of Farms	Land in Farms (1,000 acres)	Average Size (acres)
1940	132,658	30,524	230	6,102,417	1,065,114	175
1945	138,917	35,054	252	5,859,169*	1,141,615*	195
1950	137,168	36,613	267	5,388,437	1,161,420	216
1954	123,075	37,795	307	4,782,416*	1,158,192*	242
1959	99,274	36,888	372	3,710,503	1,123,508	303
1964	80,852	37,011	458	3,154,857	1,110,187	352
1969	77,875	35,328	454	2,730,250	1,062,893	389
1974	67,674	33,386	493	2,314,013	1,017,030	440
1978	73,194	32,727	447	2,257,775	1,014,777	449
1982	82,463	32,157	390	2,240,976	986,797	440
1987	83,217	30,598	368	2,087,759	964,471	462
1992	77,669	28,979	373	1,925,300	945,532	491
1997	74,126	27,699	374	1,911,859	931,795	487

* Excludes Hawaii and Alaska

Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1940-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

In 1997, more than 75% of California farms were less than 180 acres, yet the “average farm” size was 374 acres. These two statistics highlight the fact that a small percent of large farms account for a large percent of total acreage. These large farms include ranches that graze livestock and may generate relatively little total revenue.

FIGURE 9



Source: USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

A greater portion of California farmers (72.7%) are full owners of their farms than the United States as a whole (60%). Full ownership in California has been about 2/3 or more since 1940.

TABLE 10

Land Ownership of Farm Operators, 1940-1997

	All Farm Operators	Full Owners	Part Owners	Tenant	Full Owners	Part Owners	Tenant
CALIFORNIA							
Census Year	Number of Farms				Percent of Farms		
1940	132,658	89,843	13,991	28,824	67.7	10.6	21.7
1945	138,917	102,948	14,106	21,863	74.1	10.2	15.7
1950	137,168	100,834	17,478	18,856	73.5	12.7	13.8
1954	123,002	88,870	18,328	15,804	72.3	14.9	12.8
1959	99,232	68,489	17,756	12,987	69.0	17.9	13.1
1964	80,852	53,218	15,818	11,816	65.8	19.6	14.7
1969	77,875	53,727	14,361	9,787	68.9	18.4	12.5
1974	67,674	47,339	12,377	7,958	70.0	18.3	11.7
1978	73,194	51,729	12,702	8,763	70.7	17.4	12.0
1982	82,463	60,556	12,692	9,215	73.4	15.4	11.2
1987	83,217	60,639	12,218	10,360	72.9	14.7	12.4
1992	77,669	56,559	11,471	9,639	72.8	14.8	12.4
1997	74,126	53,878	10,888	9,360	72.7	14.7	12.6
UNITED STATES							
Census Year	Number of Farms				Percent of Farms		
1940	6,096,799	3,084,138	615,039	2,397,622	50.6	10.1	39.3
1945	5,859,169	3,301,361	660,502	1,897,306	56.3	11.3	32.4
1950	5,379,250	3,091,473	840,924	1,446,853	57.5	15.6	26.9
1954	4,782,393	2,736,941	856,931	1,188,521	57.2	17.9	24.9
1959	3,703,642	2,116,026	809,600	778,016	57.1	21.8	21.1
1964	3,152,611	1,816,259	780,781	555,571	57.6	24.8	17.7
1969	2,730,250	1,705,720	671,607	352,923	62.4	24.5	12.9
1974	2,314,013	1,423,953	628,224	261,836	61.5	27.2	11.3
1978	2,257,775	1,297,902	681,112	278,761	57.5	30.2	12.3
1982	2,240,976	1,325,773	656,249	258,954	59.2	29.3	11.6
1987	2,087,759	1,238,547	609,012	240,200	59.3	29.2	11.5
1992	1,925,300	1,111,738	596,657	216,905	57.7	31.0	11.3
1997	1,911,859	1,146,891	573,839	191,129	60.0	30.0	10.0

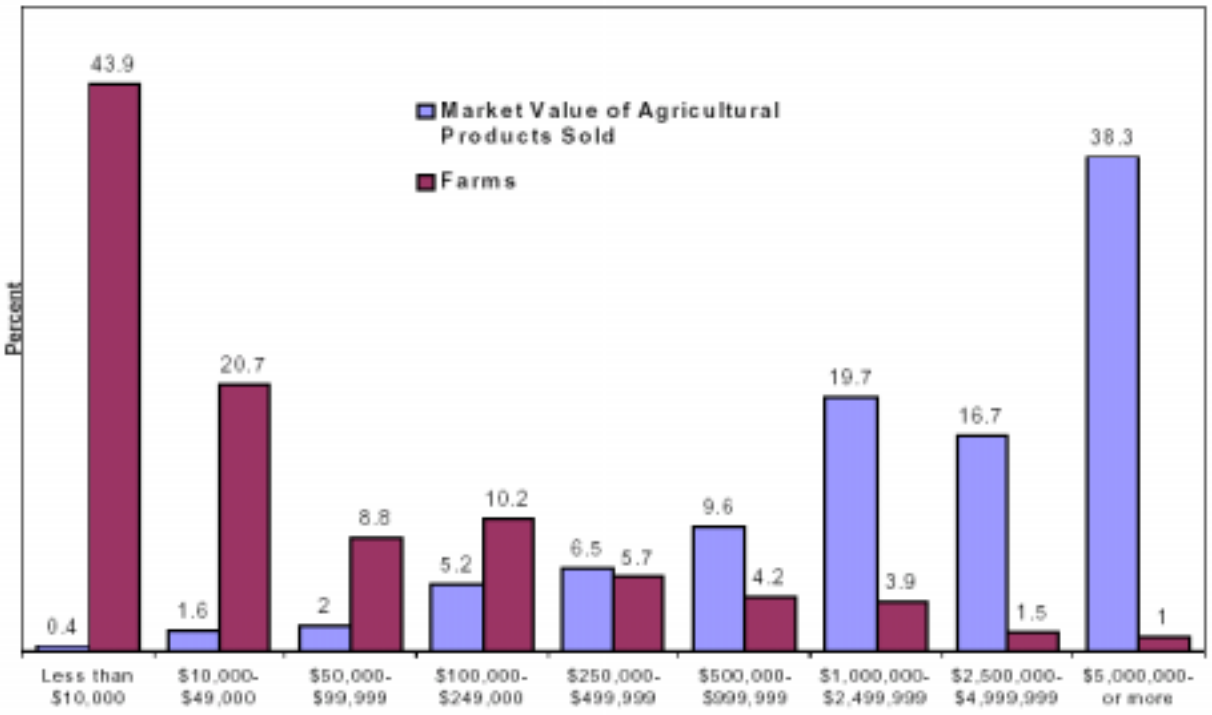
Sources:
1. U.S. Bureau of the Census, *Census of Agriculture*, 1940-1992.
2. USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

Size Distribution by Total Sales

By sales value, California agriculture is comprised of a large number of small farms, while a small number of farms represent most of the sales. The 16% of California farms with sales of more than $250,000 in 1997 also represented over 90% of total sales value.

FIGURE 10

Share of California Farms and Market Value of Agricultural Products Sold, by Total Sales Category, 1997



Source: USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

In 1997, almost 44% of California farms sold less than $10,000 of agricultural products. Most of these farms are operated by retired or part-time farmers. See I.6 for more information on retired and part-time farmers.

Legal Organization

More than three-quarters of all farms in California are individual or family proprietorships, and another 15% are partnerships.

- About 7% of all California farms are legally organized as corporations. About 85% of these are family held. Non-family held corporations (1% of the farms) produce about6% of total agricultural sales both in the United States and in California.
- Corporate farms, including those which are family held, are on average much larger than individual or family held proprietorships.

TABLE 11

Legal Organization of Farms, 1997

CALIFORNIA

				CORPORATION			
		Individual or Family	Partnership	Family Held	Not Family Held	Other*	All Farms
Farms	percent	76.6	14.6	6.0	1.1	1.8	100
Average Area	acres	249	708	975	1,103	529	374
Total Area	percent	51	28	16	3	3	100
Average Sales	($1,000)	130	655	1,541	1,770	222	311
Total Sales	percent	32	31	30	6	1	100
Average Value of Land and Buildings	($1,000)	595	1,710	3,054	3,535	1,232	941

UNITED STATES

				CORPORATION			
		Individual or Family	Partnership	Family Held	Not Family Held	Other*	All Farms
Farms	percent	86.0	8.9	4.0	0.4	0.8	100
Average Area	acres	356	881	1571	1507	4,378	487
Total Area	percent	63	16	13	1	7	100
Average Sales	($1,000)	62	210	603	1,395	117	103
Total Sales	percent	52	18	23	6	1	100
Average Value of Land and Buildings	($1,000)	360	791	1,338	1,769	1,357	450

*Other includes cooperatives, estates, trusts, and institutionals.

Source: USDA, National Agricultural Statistics Service, *1997 Census of Agriculture*.

About Yolo County

General Description

Agriculture is Yolo County's primary industry. The eastern two-thirds of the County consists of nearly level alluvial fans, flat plains, and basins, while the western third is largely composed of rolling terraces and steep uplands used for dry-farmed grain and range. The elevation ranges from slightly below sea level near the Sacramento River around Clarksburg to 3,000 feet along the ridge of the western mountains.

Yolo County's 661,760 acres is home to over 150,000 people. Nearly 85% of the population lives in the County's four cities (Davis, West Sacramento, Woodland, Winters). Its proximity to Sacramento International Airport as well as two major interstates place it within a major transportation hub of the state.

History of Yolo County

Yolo County was one of the original 27 counties created when California became a state in 1850. "Yolo" is derived from the native Poewin Indian word "yo-loy" meaning "abounding in the rushes". Other historians believe it to be the name of the Indian chief, Yodo, or the Indian village of Yodoi.

The first recorded contact with Westerners occurred in the late 1820s. These included Spanish missionaries as well as trappers and hunters who could be found along the banks of "Cache Creek" - named by French-Canadian trappers. The first white settler was William Gordon who received a land grant from the Mexican government in 1842 and began planting wheat and other crops.

The towns of Yolo County were out growths of native villages along waterways. Its first town, Fremont, was founded in 1849 along the confluence of the Sacramento and Feather Rivers and became the first county seat. Knights Landing, Washington, Cacheville (later called Yolo), Clarksburg, Winters. Esparto, Capay, Guinda, and Davisville (Davis) were all built near waterways. Davisville had the added advantage of being on the path of the newly constructed railroad. Woodland, which became the county seat in 1862, began in a wooded area of valley oaks and was also served by a nearby railroad.

In 1906, to further emphasize agriculture's role in Yolo County, the University of California chose a 780-acre farm belonging to Jerome Davis for establishment of a university farm to serve as part of the College of Agriculture. The Davis farm has since become a separate campus of the University and has received world-wide fame for its research and education work.

In 1987, West Sacramento became Yolo County's fourth incorporated city. It is home to the Port of Sacramento and Sacramento Deep Water Channel, providing worldwide access to Yolo County's agricultural and manufacturing production.

If you build it, we'll come. And we did. In the Spring of 2000, a new stadium, Raley's Field, arrived in West Sacramento on the riverfront in the First Supervisorial District. Yolo County, Sacramento County and the City of West Sacramento all formed a partnership with River City Baseball Association and brought a Triple-A baseball team from Canada to West Sacramento, now known as the Rivercats.