

Getting Bigger

Large Scale Farming in California

and

1978 Directory of California's 200 Largest Farm Operators

Don Villarejo

California Institute For Rural Studies

"In 1935 we had six million farms (in the United States). Today we have fewer than three million. Today, the 200,000 largest farms account for nearly two-thirds of all agricultural production. In contrast, as recently as 1960 small farms with sales of less than \$20,000 produced nearly half the value of all farm products. Today, farms that size produce less than 11 percent of our farm output."

Bob Bergland

Secretary of Agriculture

March 12, 1979

Speech to the National Farmers Union

"... let's go and look into Yolo County (California) and see three or four farmers control most of the county. We have the Heidricks, the Wallaces, the Andco Farms. They are farming 40,000 or 50,000 acres of ground. No little guy, and I don't care what anybody says, can compete."

John Bledsoe

Yolo County tomato and alfalfa farmer

July 27, 1977

Testimony before the California Assembly

Committee on Agriculture

State Board of Food and Agriculture

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Chapter I

SUMMARY DATA ON LARGE SCALE FARMING IN CALIFORNIA

Introduction

California has emerged as the nation's leading farm state. While it is generally agreed that California farms are, on the average, larger than those in the nation as a whole, there is little agreement on just how much of the state's farmland is in large scale operations. It is, however, generally agreed that the trend is toward fewer and larger farms. The Research Department of the Security Pacific National Bank, the nation's second ranking bank as measured by volume of agricultural loans, has pointed out that California farms are growing rapidly. The bank's economists state, "As the number of farms have decreased, the average farm size, the investment requirements and the farm income have all increased tremendously ... the average size farm unit has increased 77 percent between 1959 and 1969." (1) No such definitive statements can be made, however, regarding the extent of concentration of farms according to farm size nor is it possible to discuss with any precision such related matters as the relative importance of large scale farm operators in California agricultural production or the characteristics of large scale operators.

A major limitation in the study of large scale California farm operators is that the only systematic source of data is the Census of Agriculture conducted every five years. The Census data have been used to estimate average farm size in California. However, this procedure has been criticized by the Small Farm Viability Project of the State of California. The Project's 1977 report stated, "There is a common misconception that most California farms are rather large, and sometimes this myth is perpetuated by the fact that the average farm acreage is now over 600 acres. Actually, it is misleading to refer to the average farm size at all. One reason is that this figure is skewed upward by the presence

of a few extremely large farms. Another reason is that it encompasses cattle ranches as well as orchards." (2)

This criticism of the methodology used in the Census of Agriculture is based on the fact that the Census data show only the distribution of farms according to the size of total land, termed "land in farms," which, by definition, includes both cropland as well as range land used for livestock grazing. The Census does not tabulate data regarding the distribution of farms according to size of cropland. Thus, one can learn from the Census that California has 2,813 farms with at least 2,000 acres of land in farms but nowhere can data be found on how many farms have at least 2,000 acres of cropland. (3)

There is another problem with the Census of Agriculture. The Census does not aggregate widely separated farms operated by a single organization. That is, there are a considerable number of multi-unit farm operators in California who have distinct farms in different parts of the state. The precise Census treatment of data for a particular multi-unit farm operator is difficult to ascertain. In particular, the California Census reports that it identified "... about 1,000 operations having more than one separately reportable farm unit. For these, individual Census reports were obtained for each location. Reports received showing land in noncontiguous counties, for which the data could significantly affect the county totals, were separated into two or more reports which were assigned to the appropriate counties during office processing." (4)

A number of large scale farm operators, including D'Arrigo Brothers Co. of California, Bud Antle, Inc., Sun Harvest, Inc., Bruce Church, Inc., John R. Norton Farms and Maggio, Inc., report multi-unit farms operating in Imperial and Monterey Counties. Some, such as Sun Harvest, Inc., have farms in other counties as well. Because the Census counts independently managed units of a multi-unit farm operator as separate, autonomous farms, the overall effect is to understate the degree of concentration of farming operations in California.

By way of contrast, the Census of Manufactures recognizes that a single manufacturer may have several plants at widely scattered sites. That Census counts both the number of separate companies as well as the number of plants. More precisely, the Census of Manufactures tabulates both "companies" and "establishments." (5) Obviously, the former number will always be smaller than the latter.

The present study was undertaken with the intention to correct, at the outset, some of the difficulties encountered in using Census of Agriculture data to arrive at conclusions regarding the extent of farm concentration in California. This study examines California's large farms. It is not a study of land owners. This distinction must be made because it is quite commonly the case that California farmers lease the ground that they farm. First, we use the approach of the Census of Manufactures and aggregate data for separate farms of multi-unit farm operators. Second, we tabulate both cropland and total land to permit construction of tables showing the distribution of farm operators according to cropland size as well as the distribution of farm operators by the size of land in farms. The raw data used in the present study were compiled from public record sources located in government offices throughout the state. Unlike the Census, we could not expect to obtain voluntary reports directly from all farm operators in the state. For that reason, a systematic search of pertinent public records was conducted.

We attempted to identify as many California operators as possible with 1978 cropland acreage in excess of 1,000 acres. Data sought included name of farm operator, location, gross acreage (total land including range land used for grazing), and net cropland acreage. This involved direct inspection of documents at government record-keeping offices in all California counties as well as field work in a variety of state and federal government offices in Los Angeles, Sacramento and San Francisco. In compiling the data utilized in this study, we

have applied the definition of cropland of the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture. That is, cropland is land that is currently being tilled. Since the ASCS records of California farm operators were the primary source of our data and since the ASCS acreage figures are verified with the assistance of aerial photography, it is likely that this approach results in an accurate record of 1978 cropland acreage. A detailed description of sources consulted and procedures used is presented in Appendix A of this report.

In addition to presenting data intended to contribute to a more precise understanding of the degree of concentration of farm operations in California, it also proved possible to address a number of related questions. This is because data were found that extend beyond what is normally available in the Census of Agriculture. The questions include:

- 1.) What is the extent of ownership and leasing of the lands farmed by the largest farm operators?
- 2.) To what degree do non-farm business operators own large scale farming operations in California?
- 3.) What inter-relations, if any, exist among presumably independent large scale farm operators?
- 4.) What is the rate of return on invested capital among large operators?

Farm Concentration

A statistical summary of the data obtained in the present study is contained in Table I. Data are presented showing both the number and aggregate cropland of California farm operators that we have determined to be farming a total of at least 1,000 acres of cropland in 1978.

The figures given in Table I are likely to understate both the degree of concentration and the importance of large scale farm operators. This is because

it is unlikely that all independently managed farms of each farm operator have been identified in our survey. Therefore, both the number of farm operators and the aggregate cropland acreage are smaller than the true values by an unknown amount.

Table I
California Farm Operators with more than 1,000 Cropland Acres,
by Size of Cropland, 1978

<u>Cropland Size</u>	<u>Number</u>	<u>Percent of farms(a)</u>	<u>Aggregate Cropland(Acres)</u>	<u>Percent of Calif. cropland(b)</u>
Greater than 5,000 acres	211	0.35%	2,418,060	22.7%
2,000 to 4,999 acres	670	1.12	2,034,404	19.1
1,000 to 1,999 acres	1,325	2.24	1,834,699	17.3
Total	2,206	3.7%	6,287,163	59.1%

(a) Using 1974 Census of Agriculture total of 59,192 California farms with cropland.

(b) Using 1974 Census of Agriculture total of 10,629,829 California cropland acres.

From these data we conclude that 59% of all California cropland is farmed by operators who have at least 1,000 cropland acres. These 2,206 large farm businesses comprise only 3.7% of all California farms with cropland. The 211 farm operators in the largest size category, those with at least 5,000 acres of cropland, account for only 1/3 of 1% of all farms, yet operate on 22% of the state's cropland. The farm operators in this largest size class have an average of 11,460 acres of cropland, equal to 17.9 square miles of cropland per operator. Chapter II of this study reports on a more detailed investigation of these largest farming organizations.

Our results contrast sharply with conclusions based on data in the Census of Agriculture. For example, the Small Farm Viability Project, using Census data, points out that "Only 10% of the farms have 1,000 acres or more (of irrigated land), but this 10% takes up 57% of all California's irrigated land." (6)

To illustrate how the Census methodology leads to a significant understatement

of the true degree of concentration we show in Table II the operations of Calplans Agricultural Fund and the affiliated Calplans Agricultural Fund II. These ranches are limited partnerships and are managed by Calplans Farms and Calplans Vineyards, operating divisions of Calplans Corporation.

Table II

Separate Farms Operated by Calplans Agricultural Fund
and Affiliated Enterprises, 1978

<u>Ranch</u>	<u>County</u>	<u>Total Land</u>	<u>Cropland</u>
Five Points Ranch	Fresno	3,806 acres	3,707 acres
Hanes Valley Ranch	Monterey	2,716	2,303
County Line Ranch	Madera and Merced	3,946	3,823
Sausel Creek Vineyard	Sonoma	198	182
Merced Ranch	Merced	2,552	2,522
Adobe Ranch	Kern	3,300	3,300
Eight managed vineyards	Napa and Sonoma	854	800
Total		17,452 acres	16,637 acres

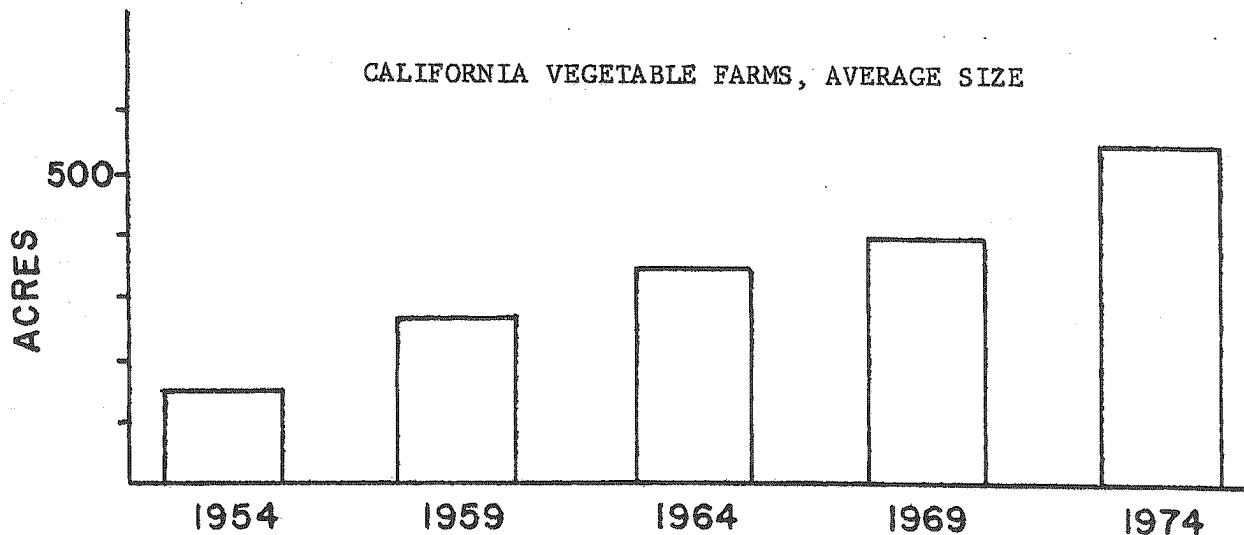
Source: Calif. Dept. of Corporations, File No. 302 9857

As is clear from the table, the overall operation comprises at least seven independent ranch properties. According to Census procedures these seven ranches would probably be treated as four independent farms. Though this is actually a single farm operator with more than 16,000 acres of cropland, the Census of Agriculture would count it as a number of autonomous farms. Thus, the Census overstates the number of farms, and understates their size. Our practice of combining the separate farm operations of a single farm operator is a valid procedure that shows there is a higher degree of concentration than would be inferred from the publications of the Census of Agriculture.

Overall, we find that for the 211 farm operators with at least 5,000 acres of California cropland some 42% (89 of 211) would be reported as multiple numbers

of farms using the approach of the Census of Agriculture. For example, M & T, Inc., reports a farm in Butte County and a separately managed farm in San Joaquin County, more than 150 miles away. That such a large fraction of farm operators in the biggest size category are affected by the limitations of Census procedures is surprising. Evidently, California agriculture has reached a stage of development where an appreciable fraction of production capacity is now operated by businesses with multiple units in widely scattered locations. It should also be noted that some operators, including Sun Harvest, Inc., Bruce Church, Inc., Maggio, Inc., J. G. Boswell Co., and Tenneco West, Inc., have substantial operations in other states as well. (7)

The Census of Agriculture remains the best available source of data on farms operating within California although our research demonstrates the difficulties of relying upon that source in arriving at conclusions regarding the degree of farm concentration. The fact that the Census applies the same definitions each time it is conducted suggests that trends over time are probably more reliable than absolute measures for a particular year. In this context, we refer to Figure 1, which shows average vegetable farm size in California in the recent period.



Source: Census of Agriculture, State and County Data, various years

Figure 1

The rapid growth illustrated in Figure 1 indicates the tendency toward an ever larger farm unit. It is likely, however, that the practice of the Census in not aggregating all operations of multi-unit farm operators masks the true rate of increase of concentration over the years by an unknown amount. Since vegetable farms have a high ratio of cropland to total "land in farms" the fact that the average size of 533 acres for these farms is comparable to the average for all commercial California farms (632 acres) indicates that farms with cropland may be a good bit larger than has been previously recognized. We suggest that California farming operations, because of the large fraction of multi-unit operators, are even larger than these data from the Census indicate.

A significant question regarding the accuracy of the present study concerns whether or not we have successfully identified all, or nearly all, farm operators in the largest size classes. Our data permit separate analysis of total land in farms (in which the variable of interest is the Census definition of "land in farms"). Table III presents data obtained in the present study showing the distribution of farm operators according to size of total land in farms.

Table III
Large Scale California Farm Operators,
by Size of Total Land in Farms, 1978

<u>Size of Total Land in Farms</u>	<u>Number of Farm Operators</u>	<u>Aggregate Land in Farms (Acres)</u>	<u>Aggregate Cropland (Acres)</u>
Greater than 2,000 acres	2,726	23,224,762	5,298,276
1,000 to 1,999 acres	2,381	3,302,446	1,720,574
Total	5,107	26,527,208	7,018,850

These data can be directly compared with the results of the 1974 Census of Agriculture. The Census data are presented in Table IV. Before noting any comparisons between Table III and Table IV, it is important to realize that the data in the two tables refer to different years. With that in mind, comparison

of Tables III and IV indicates that we have successfully identified a very large fraction of California farm operators with at least 1,000 acres of total land in farms. Moreover, it is also likely that a very large fraction of total farmland on which such operators conduct their business has been identified as well.

Table IV
Large Scale California Farms, by Size of Land in Farms, 1974
Census of Agriculture

<u>Size of Total Land in Farms</u>	<u>Number of Farms</u>	<u>Aggregate Land in Farms (Acres)</u>	<u>Aggregate Cropland (Acres)</u>
Greater than 2,000 acres	2,813	23,587,926	4,212,695
1,000 to 1,999 acres	2,320	3,195,333	1,635,055
Total	5,133	26,783,259	5,847,750

Sources: 1974 Census of Agriculture

- a. Vol. I, Part 5, California State and County Data, Table 2, p. I-1.
- b. Statistics by Subject, Table 24, p. II-34

Chapter II

CHARACTERISTICS OF CALIFORNIA'S LARGEST FARMS

In order to better understand the structure of large scale farming in California, the operations of the 211 farming organizations with at least 5,000 acres of cropland were intensively studied. Data sought for each of these farm businesses included:

- form of business organization (corporation, partnership or sole proprietorship)
- cropland leased, with identification of landowners
- cropland owned
- identification of executives/owners
- crops
- affiliated businesses
- basic financial data (assets, sales, rate of return on invested capital)

Because the data collected were limited to those available in public record sources, it was not possible to obtain full information for each of these 211 operators. Even so, much more data, of a different kind, were found than is normally available in the Census of Agriculture. A detailed listing of the 211 businesses is contained in Appendix B, where they are ranked in descending order by size of cropland farmed.

Leasing

Usable information regarding cropland owned and cropland leased was obtained for 185 of the 211 largest farm operators. Of these, only 35, or roughly one out of five, farm exclusively on land owned in the name of the operator. Four out of five large operators, in other words, lease at least a portion of the cropland they farm. Table V shows a summary of ownership/leasing data found in the present study. As is evident from the data in Table V, the amount of cropland leased by the largest California farm operators is roughly equal to

the amount of cropland they own.

Table V
Summary of Cropland Ownership/Leasing, 1978
211 Large Scale California Farm Operators

	<u>Aggregate Cropland (Acres)</u>	<u>Percent of Cropland</u>
Aggregate cropland owned by Operator	1,081,947	44.7%
Aggregate cropland leased by Operator	1,174,003	48.6
Ownership/leasing undetermined	162,110	6.7
Total	<u>2,418,060</u>	<u>100.0</u>

Our results can be compared with data from the Census of Agriculture. The Census summary refers to "land in farms" for all farms in the state and includes cropland as well as range land. In 1974 about 18.1 million acres were leased and about 15.3 million acres were operated by the owner. (8) This is equivalent to 54% leased and 46% owned and is rather close to the 52% - 48% breakdown found for the cropland farmed by the largest operators for which we were able to determine leasing/ownership. We conclude that leasing/ownership patterns are not significantly different for large scale farming operations than for all California farms. Equally important, it should be clear that leasing of cropland is just as significant as is ownership of cropland to those businesses that are farming California's farm land.

Further data on leasing practices is shown in Table VI, where we present data on the number of separate landowners from whom the largest farm operators lease cropland.

While there is little detailed information on the duration of agricultural leases, inspection of typical lease documents in the public record suggests that periods of 2 to 5 years are the most common. Assuming this range of lease duration, the large scale farm operator who leases cropland would have to

renegotiate an average of 2 to 6 leases per year. This suggests that lease turnover is the dominant factor in changes of farm size over the short term. That is, since a very large number of leases come up for renewal every year and since large scale farm operators lease roughly 50% of the land they farm, dropping or adding leases provides a vehicle that can rapidly change farm size. Moreover, with California cropland commanding premium prices in the real estate market, and with mortgage loan interest rates at record high levels, leasing also appears to be a very expeditious method for rapid farm expansion.

Table VI
Number of Landlords per Farm Operator
211 Large Scale Farm Operators, 1978

<u>Number of Landlords</u>	<u>Number of Farm Operators</u>
1 through 10	91
11 through 20	29
21 through 30	18
31 through 40	2
41 through 50	5
More than 50	<u>5</u>
Sub-total of farm operators leasing	150
None - Own all land farmed	<u>35</u>
Sub-total	185
Undetermined	<u>26</u>
Total	211

Average number of landlords per farm operator who leases: 13

Note: In compiling these data we have aggregated separate parcels owned by a single landowner. The data shown therefore refer to the number of distinct landlords and not to the number of individual parcels.

Since leasing was found to be such a widespread practice among the largest farm operators, an attempt was made to determine the leading owners of cropland farmed by the 211 largest farm operators. In so doing a note of caution must be issued. This is because a particular landowner may hold land through a number of different corporations or in the name of the individual owner. No attempt was made to take account of this possibility. Only names of record owners were used in compiling land ownership data.

Identification of landowners who lease cropland to the 211 largest farm operators in California made possible the compilation of Table VII, which shows the leading landowners of cropland farmed by these largest farm operators. In addition, we also show the number of such farm operators to whom cropland is leased.

Table VII
Leading Landowners of Cropland Farmed
by 211 Large California Farm Operators, 1978

<u>Landowner</u>	<u>Owner Operated (Acres)</u>	<u>Leased to Others (Acres)</u>	<u>Number of Large Operators Leasing</u>	<u>Total Cropland (Acres)</u>
*J. G. Boswell Co.	120,576	3,957	2	124,533
Southern Pacific Land Co.	--	96,647	41	96,647
*Newhall Land & Farming Co.	52,864	--	--	52,864
*South Lake Farms, Inc.	45,425	630	1	46,055
*Tenneco West, Inc.	21,087	17,153	4	38,240
*Salyer Land Co.	34,592	99	1	34,691
Standard Oil Co. of Calif.	--	34,394	16	34,394
*Superior Farming Co.	33,576	240	2	33,816
Prudential Insurance Co. partnerships	--	30,347	2	30,347
*Tejon Ranch Co.	25,495	3,615	2	29,110

* Landowner is also one of the 211 largest California farm operators conducting farming operations on this cropland.

The situation summarized in Table VII is actually quite complex. For example, J. G. Boswell Co. farms 147,505 acres of cropland of which 120,576 acres are owned by the company or its subsidiaries. This means that Boswell farms 26,929 acres of cropland that is leased from other landowners. But Boswell also owns 3,957 acres of cropland that it has leased to other farm operators among the 211 largest. Boswell may be leasing additional owned cropland to other farm operators whose operations are smaller than the 5,000 cropland acre total that is the minimum for inclusion in our survey of leasing practices.

It is also important to realize that the data in Table VII are surely lower bounds to the actual amount of cropland owned by several of the landowners listed. It is known that Standard Oil Co. of Calif. and Southern Pacific Land Co. have extensive additional cropland holdings farmed by smaller operators.

For example, Standard Oil reports ownership of a total of 65,000 acres of irrigated farmland in the San Joaquin Valley of California and the Southern Pacific Land Co. holds extensive properties throughout the state. (9)

Of the ten leading owners of cropland farmed by the 211 largest farm operators the majority are also farm operators. Only three are not. Among the twenty largest we find only five that are not also farm operators, i.e., are landowners only. (10) Thus, it appears that the leading owners of cropland farmed by the largest scale farm organizations are predominantly also farm operators.

Ownership Share of Non-Farm Business Enterprises

In recent years there has been a considerable amount of attention directed to the entry of non-farm businesses into farming. (11) Tenneco and Superior Oil are two major corporations who have bought their way into large scale farming. Yet no precise measurement of the importance of non-farm businesses in farming has been made. To study this question, information was compiled regarding ownership of each of the 211 largest California farming organizations. Public record sources ranging from Annual Form 10-K Reports submitted to the United States Securities and Exchange Commission to Statements of Fictitious Business Names filed with County Clerks were consulted. While it is possible that the use of dummy names can conceal ownership, we have obtained detailed ownership information for 208 of the 211 largest farming operations included in our study.

We find that only 19 out of the 211 farm operators are owned or dominated by non-farm businesses. This group of 19 includes some of the largest operators. For example, South Lake Farms, Inc., is owned by a subsidiary of the Connecticut based conglomerate Bangor Punta Corp. Nevertheless, using cropland data, we find that only 9% of the biggest operations are controlled by non-farm businesses. These 19 farm an aggregate of 292,480 cropland acres, or roughly 12% of the 2.4 million acres of cropland farmed by operators with at least 5,000 acres of such

land. A detailed listing of these 19 farm operators is presented in Table VIII and more detailed information concerning their ownership may be found in Appendix B. In view of the great deal of attention that has been directed to the role of non-farm businesses in California agriculture this is a surprising finding. It is likely that a particular agricultural industry, such as wine grape production, may have a larger degree of dominance by non-farm businesses than is the case for the whole of California farming. Among the twenty largest farm operators we find that only five can be reasonably characterized as owned or controlled by companies that are primarily active in non-farm activities. (12)

Table VIII
Large Scale Farm Operators Owned by Non-Farm Businesses

<u>Name of Farm Operator</u>	<u>Cropland (Acres)</u>
Allarco Development Co., Ltd.	11,500
Almaden Vineyards, Inc.	6,748
Bud Antle, Inc.	5,426
Belridge Farms	22,157
Blackwell Land Co.	15,412
Buttes Farmland Development Co.	9,410
Del Monte Corp.	5,882
Deseret Farms and LDS Church	5,701
Hearst Corp.	6,854
Paul Masson, Inc.	5,200
Minnehoma Land and Farming Co.	10,000
Rancho California	17,903
S & J Ranch, Inc.	6,648
South Lake Farms, Inc.	58,829
Sun Harvest, Inc.	15,754
Superior Farming Co.	33,576
Tejon Ranch Co.	25,495
Tenneco West, Inc.	23,893
Westward Farms	6,092
<hr/>	
Aggregate Cropland, 19 operators	292,480

Although relatively few of the 211 largest farming enterprises are owned by non-farm businesses, quite a few more are substantially owned by urban investors. For example, Parrot Ranch Co., Calplans Agricultural Fund, M & T, Inc., and River Garden Farms, Inc., are all controlled by investors from urban areas who

do not "farm" the properties of these companies. The precise degree to which urban investors control farming companies cannot be stated using our data.

Another aspect of the involvement of non-farm businesses in California agriculture is the extent to which large scale farm operators conduct non-farm businesses or conduct integrated operations under different company names. Here, there seem to be some definite patterns. Newhall Land & Farming Co., Irvine Co., Rancho California and M & T, Inc., are also involved in land development schemes. Others, such as E & J Gallo Winery, Del Monte Corp. and Anderson Farms Co. are involved in processing and trucking as well as farming. Once again, the precise extent to which this occurs is difficult to define and measure.

Our findings suggest that farming operations of non-farm business enterprises play a significant but not a dominant role in large scale farming in California. With this conclusion in mind we are faced with a different question, namely, can we characterize the type or patterns of large scale farm operators in the state? That is, having determined that only 12% of the cropland farmed by the 211 largest operators is controlled by non-farm businesses, can we characterize the operators of the remaining 88% of this cropland?

While this last question is well beyond the scope of the present study, we do offer in Chapter III an analysis of one type of large scale farming operation that may play a far more significant role than do non-farm businesses.

What can be stated with more certainty is the form of business organization employed by the 211 largest farm organizations. This is given in Table IX.

Table IX
211 Large Scale California Farm Operators, 1978

<u>Form of Business Organization</u>	<u>Number</u>
Corporation	108
Partnership	54
Sole proprietorship	43
Other	3
Undetermined	3

A majority of these large scale farm operators are corporations. However, nearly as many are either partnerships or sole proprietorships. Thus, while the corporate form is dominant, a very significant fraction utilizes forms of organization normally associated with small-scale business. Among the twenty largest farm operators we find that eighteen are corporations, one is a partnership and one is a sole proprietorship. (12) This confirms the strong correlation of the corporate form with large scale size but also illustrates the fact that the relationship is not exclusive. Moreover, it is likely that the mix of business forms we find reflects the evolution of small scale businesses into large scale operations.

Interrelations Among Large Scale California Farm Operators

The substantial interlocking relationships among very large companies in the industrial sector has been well documented by various government agencies such as the Federal Trade Commission. Though California farm operators are not nearly so large in terms of assets or employees, we can ask whether presumably independent large scale farm operators have significant interlocking relations. Accordingly, for those that are corporations we have compiled the names of all officers and directors from the records of the California Secretary of State or from the corresponding agency if the corporation was incorporated in another state. In the case of partnerships, the names of all partners were compiled from Statements of Fictitious Business Names filed with the appropriate County Clerk. Finally, the names of all sole proprietors were also compiled. In the special case of limited partnerships, only the names of the General Partners were compiled, not the names of the Limited Partners.

We find that 33 of the 211 largest farm operators included for detailed study have direct interlocking relationships. The remaining 178 farm operators (84%) do not have direct interlocking connections. Consideration of indirect relationships in which independent operators serve together on boards of various

corporations (banks, processing companies, etc.) is beyond the scope of the present study. However, we have included instances in which independent farm operators jointly own or operate a related business. For example, Superior Farming Co. and S & J Ranch, Inc., each own a one-third interest in the California Association of Pistachio Producers, a major pistachio processor. The eleven large scale farm operators interconnected with J.G. Boswell Co. or with Tulare Lake Representatives are shown in Figure 2 while the remaining twenty-two are tabulated in Table X (see next page).

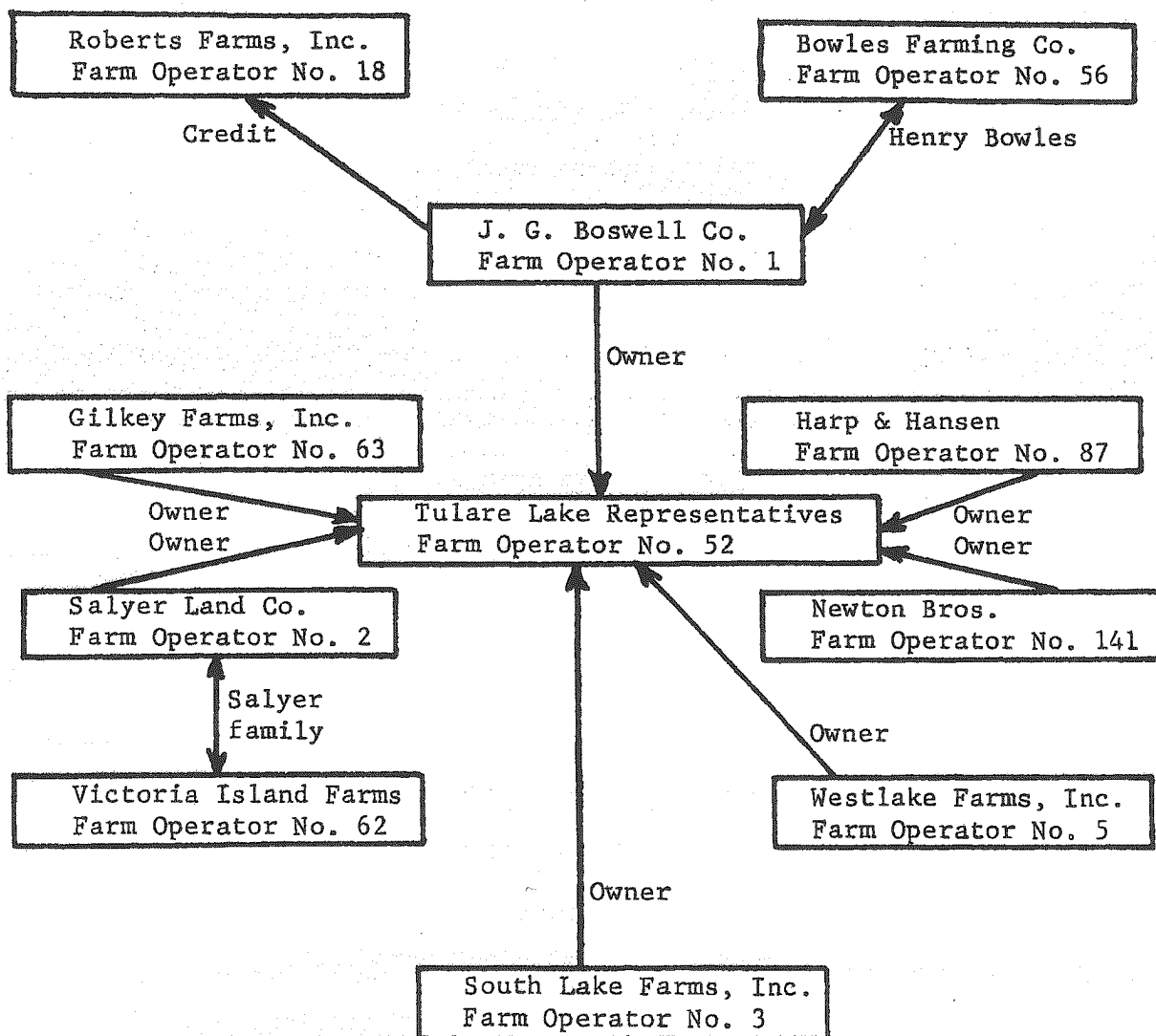


Figure 2. Interrelations of J. G. Boswell Co. and Tulare Lake Representatives with Large Scale Farm Operators

Table X
Interrelated Large Scale Farm Operators

<u>Farm Operator</u>	<u>Interrelationship</u>
Ancho Vista Ranch And Bar Co. Farms	Charles W. Kuhnle is also partner of C.W.Kuhnle & Sons J.B.Anderson is also owner of Anderson Farms Co. J.B.Anderson is also partner of Chew Bros. Farms J.B.Anderson is also partner with Buttes Farmland Development Co. in joint venture Cranco
D.Anderson & Sons Farming Anderson Farms Co.	R.A.Barber is also partner of Chew Bros. Farms D.Anderson is also President of Vasto Valle Farms, Inc. J.B.Anderson is also partner of And Bar Co. Farms J.B.Anderson is also partner of Chew Bros. Farms J.B.Anderson is also partner with Buttes Farmland Development Co. in joint venture Cranco
Buttes Farmland Dev. Co. Chew Bros. Farms	Company is also partner with J.B.Anderson in Cranco J.B.Anderson is also owner of Anderson Farms Co. J.B.Anderson is also partner of And Bar Co. Farms J.B.Anderson is also partner with Buttes Farmland Development Co. in joint venture Cranco
Estrella Cattle Co. Five Points Ranch Harris Farms, Inc. Irvine Co. Charles W. Kuhnle & Sons La Cuesta Verde Ginning Mouren Farming Co., Inc. S & J Ranch, Inc. S.K.Ranch	R.A.Barber is also partner of And Bar Co. Farms M.H.Wallace is also President of Wallace Properties, Inc. F.C.Diener is also partner of Shining D Farms Company is joint owner with Sumner Peck Ranch of Agro-West Two principal stockholders in common with Sun Harvest parent Charles W. Kuhnle is also partner of Ancho Vista Ranch Leading stockholder in common with Mouren Farming Co. Leading stockholder in common with La Cuesta Verde Ginning Company is partner with Superior Farming in owning processor Patrick T. Shannon is also partner of Westfarmers Richard M. Shannon is also partner of Westfarmers F.C.Diener is also partner of Five Points Ranch Company is joint owner with Harris Farms of Agro-West Two principal stockholders in common with Irvine Co. Company is partner with S & J Ranch in owning processor D.Anderson is also President of D. Anderson & Sons Farming M.H.Wallace is also partner of Estrella Cattle Co. Patrick T. Shannon is also partner of S.K.Ranch Richard M. Shannon is also partner of S.K.Ranch
Shining D Farms Sumner Peck Ranch, Inc. Sun Harvest, Inc. Superior Farming Co. Vasto Valle Farms, Inc. Wallace Properties, Inc. Westfarmers	

Note: See Figure 2 (p. 18) for interrelationships among an additional eleven large scale farm operators.

Rate of Return on Investment

At the outset of this investigation it was intended that data would be sought that would make possible an accurate estimate of the rate of return on invested capital for very large scale farming operations. Most of the enterprises studied do not disclose financial or operating data to the public that would permit direct computation of this important indicator of economic performance.

Data to determine this measure of profitability were found for only fifteen corporations among the two hundred and eleven large farm operators studied. These fifteen include three publicly held corporations and twelve privately held corporations. Data were found for the 1978 year in the case of seven, for 1977 in the case of two, and for 1976 or earlier in the case of the remaining six.

The mean rate of return on invested capital (net income, after taxes, divided by stockholders' equity) for these fifteen corporations was 16.1% (standard deviation = 8.0%). If the data are restricted to the nine corporations for which information pertaining to the two most recent years was available, the results are slightly different. In this latter case the mean rate of return on invested capital was 14.0% (standard deviation = 7.0%).

These figures should not be compared with data on the rate of return on production assets. On a national basis, the latter rate of return averaged 4% per year for the twenty-five year period 1950-75. (13) This 4% per year figure is based upon the current market value of assets, whereas the rate of return on invested capital does not. Since invested capital consists of the actual stockholders' investment plus aggregate net income (profits) retained and re-invested in the business, the rate of return on invested capital is a direct measure of the profitability of an initial investment in creating the company.

For purposes of reference we show in Table XI the data used in our computations (see p. 21). These figures can be compared with the average of 14.8% return on invested capital for all U.S. manufacturing industry and are surprisingly close to that value. In that context it should be noted that two of the corporations with the highest rate of return are Newhall Land & Farming Co. and The Irvine Co. for which the non-farm business activities are included along with those in which we are primarily interested. These two companies have a long history of land development projects in the booming Southern California real estate market.

Table XI
Rate of Return, After Taxes, on Invested Capital
Large Farm Operators, 1978

<u>Farm Operator</u>	<u>Name of Farm Operator</u>	<u>Rate of Return</u>	<u>Comment</u>
1	J.G. Boswell Co.	16.5%	For 1976
2	Salyer Land Co.	20.9	For 1974-75 (estimated)
3	South Lake Farms, Inc.	11.8	
4	Newhall Land & Farming Co.	26.1	Includes non-farm activities
11	Irvine Co.	23.4	Includes non-farm activities
13	Tejon Ranch Co.	7.6	
20	Zunwalt Farms, Inc.	14.1	For 1975 (estimated)
24	Britz, Inc.	11.2	For 1975
27	Harris Farms, Inc.	7.1	
30	Parrott Ranch Co.	7.5	
40	M & T, Inc.	15.9	For 1977, incl. non-farm activ.
100	Rabb Bros. Ranch, Inc.	34.3	For 1975
175	Vaquero Farms, Inc.	16.1	For 1977
177	Bud Antle, Inc.	22.6	For 1971
187	Heringer Ranches, Inc.	10.5	Incl. pelleting division

Note: Farm Operator numbers refer to ranking according to size of 1978 cropland acreage among the 211 large scale farm operators included in this study. See Appendix B for further details.

Chapter III

ANDERSON FARMS CO.: HOW ONE LARGE FARM OPERATOR GOT BIG

"Farming in California is a means to an end, and that end is owning land."

. . . Jack Anderson
Owner, Anderson Farms Co. (14)

The archetypical large California farm, such as Newhall Land & Farming Co. or the Tejon Ranch Co. traces its origins back to the 19th Century acquisition of Spanish land grants or ranchos. (15) But among our listing of large scale California farm operations we also find a great many enterprises of more recent origin. Having established that farming subsidiaries of non-farm businesses play an important but by no means dominant role in large scale agriculture in California, we need to examine the mechanisms of expansion by which enterprises become big. Acquisition of Spanish land grants was the dominant mechanism of the 19th Century. Our questions now focus on contemporary mechanisms of farm concentration.

Anderson Farms Co. and its affiliates ranked as the seventh largest California farm operator in 1978 according to our survey. (16) Fifteen years ago the company did not exist. Owned by John B. "Jack" Anderson, the sprawling land empire has emerged as the leading producer of processing tomatoes in the nation and, very likely, in the world. But this operation is not a giant corporate farm owned by absentee landlords. Instead, it is the carefully constructed product of a fifth generation Yolo County farmer. While his 1960's classmates at the University of California were helping to create the campus turbulence that characterized a decade, Jack Anderson was busily studying agricultural economics.

It is of more than passing interest that Anderson's successful expansion parallels the development of mechanical tomato harvesting in California. In the mid-1960's, when he planted his first 80 acres of tomatoes, the Bracero program was terminated by Congress. This Federal program permitted the temporary

immigration of Mexican workers into the United States to harvest various crops, providing low wage labor to farmers. With the loss of this supply of cheap labor, growers had to either raise wages to attract domestic labor, or come up with an alternative. Anxious to keep harvest costs low, tomato growers turned to the mechanical tomato harvester. A program at the University of California had developed both the machine as well as a durable tomato suited to mechanical harvest. (17) Within a few years, the technology was widely adopted, as it led to a substantial savings of harvest costs. (18)

Anderson recognized the potential of this new technology and moved quickly to take advantage of it. In a sense, his wealth is a by-product of the University's scientific research. During the period of Anderson's expansion, the California processing tomato industry changed rapidly. In 1964, before the harvest was mechanized, there were some 4,000 tomato growers, with an average planting of 45 acres of canning tomatoes. By 1974 the harvest was completely mechanized, and only 600 growers remained. These had expanded their operations to an average of more than 350 acres. (19) Most growers could not afford to both purchase the new machines as well as expand their tomato acreage to the minimum size needed for efficient mechanized harvest.

Anderson, however, was one of the growers who did expand. Shortly after graduation, he began farming 80 acres of leased land, planting tomatoes. The following year he sub-leased additional acreage from his father to bring his total acreage to 585 acres. (20) Two years later, in 1968, he purchased a pair of mechanical tomato harvesters and thereby made a commitment to substantial tomato production. (21) Only the high profit margin of tomato production can provide the profits needed to pay the capital costs of acquiring these expensive machines.

Anderson's critical maneuver, however, came a year later, in the 1969 farming season, when he was able to lease twelve parcels of Yolo County farm

land totaling just over 2,800 acres. (22) These parcels were leased from local landowners. It is likely that all were at least acquainted with Anderson's family. With the help of a crop loan from the nearby Production Credit Association, Anderson was able to finance the costs of large scale production. But just as crucial to this stage of expansion was Anderson's ability to obtain leases on a large acreage, as well as contracts from tomato canneries for the delivery of the harvested crop. According to a knowledgeable local farmer, Anderson was able to obtain contracts from tomato canneries by promising to grow lower profit melons for the cannery as well. (23)

A year later Anderson doubled the size of his farming operation by adding land leased from two more local landowners as well as a very large parcel owned by a subsidiary of the Pacific Lumber Company. Pacific Lumber is a major West Coast logging and wood products corporation with substantial agricultural holdings. Thus, by the 1970 season his farming operation had reached 5,774 acres in Yolo County. Of that total his only ownership interest involved some 513 acres that he had purchased jointly with his parents in early 1969.

The next major step in expansion came during the 1971 farm season when he was able to obtain a lease on the 8,000 acre Mace-Cowell-Glide ranches in the eastern part of Yolo County. (25) The main landholder in this case was the S. H. Cowell Foundation of San Francisco. With some 13,800 acres under cultivation Anderson was now gaining recognition as an important factor in Sacramento Valley agriculture. In fact, in late 1970 he was cited as Yolo County's outstanding Young Farmer of the Year by the county's agricultural leaders. (26) Central to the growth of this sizeable operation, however, was access to land through leasehold agreements and access to credit to finance production costs. By the end of 1971 he still had ownership interest in only 513 acres, but was leasing 13,300.

In 1972, a new element was added. This was the emergence of the first

three of a series of limited partnerships with Anderson as general partner. These were California Farms No. 1, Ltd., California Farms No. 2, Ltd., and Anderson and Arnold. The essence of a limited partnership is that the general partner, in this case Anderson, provides the management and assumes legal liability for the business. The limited partners provide cash and have liability only for the amount that they have invested. The limited partners also enjoy tax benefits. California Farms No. 1 and No. 2 had eleven limited partners. Together they invested some \$442,334. (27) Seven of the limited partners were Sacramento area physicians with medical specialties ranging from eye surgery to urology. The remaining four were Sacramento area businessmen. Evidently the funds provided through the limited partnerships can leverage additional funds from banks and other sources of production credit. (28) Thus, in effect, Anderson was able to leverage substantial additional funds that could not be obtained through his own line of credit. In subsequent years Anderson formed another half dozen such limited partnerships providing investment opportunities for a group of people that included a San Jose architect who put up as much as \$150,000 and a Los Angeles area businessman who invested as much as \$100,000. (29)

Anderson's use of credit expanded significantly in 1973 with the lease of sixteen tomato harvest machines directly from the manufacturer, FMC Corp. (30) Together with the tomato harvesters he owned he had the capacity to grow and harvest at least 5,000 acres of tomatoes. In the last month of 1973 he leased 86 sets of flatbed trailers, pulls, 12½ ton capacity tomato tubs and tractors. (31) By such lease agreements he did not tie up large amounts of capital in equipment purchase and could still have available the vast resources needed to operate the "world's largest tomato farm."

Anderson's relationship to FMC Corp. was not limited to the lease of the sixteen tomato harvest machines. In early 1974 he entered into a partnership to construct a tomato canning plant in nearby Solano County. Financing in the

amount of \$4,200,000 was provided through the May 1974 agreement by FMC Finance Corp. to Anderson Farms Co. and T.H. Richards Canning Co., partners in the cannery. (32) The finished cannery was later sold to a subsidiary of the giant Campbell Soup Co. (33)

1974 was a critical year for Anderson. With major expansion into adjoining Sutter and Solano counties his total farming acreage was reaching towards 30,000 acres. Moreover, an unexpected price increase brought the rate for processing tomatoes up from \$35 per ton to an unprecedented \$56.80 per ton. He gambled everything and planted an estimated 11,000 acres of tomatoes in Yolo County alone. Some estimated his total tomato acreage that year as 20,000 acres. The total production cost involved was in excess of \$15,000,000. When the crucial harvest began, his operations encountered an unexpected obstacle: a harvest time strike by his employees.

The 1974 tomato strike began in San Joaquin County, in the fresh market tomato industry. By September 4 it spread to Yolo County where workers walked off the job at Nishikawa Brothers Farms, directly across from the biggest tracts of Anderson's tomatoes. Within hours, thirteen of Anderson's twenty-five harvest machines were shut down, and some four hundred harvest workers were on strike. (34) The strike caught Anderson at his most vulnerable time. Millions of dollars had already been spent planting, cultivating and irrigating the vast tracts of tomato plants. At the very moment of harvest, he faced losing it all. More to the point, the money already spent on developing the crop was mainly borrowed. And since he had partial liability for the limited partnerships as well, Anderson faced financial ruin.

A few weeks before the strike began, state inspectors from the California Department of Housing and Community Development found an average of 6.8 persons living in each 10 ft. by 12 ft. room at the Anderson labor camp known as Mace I. Some 378 people were jammed into buildings that the state authorities said should

house no more than 167. (35) And the day before Anderson's workers joined the picket lines, the California Attorney General sought a restraining order to close the camp. (36)

Anderson and his top management acted forcefully in response to the strike and to the actions of state officials. Sheriff's deputies were stationed at the main entrance to Anderson's Mace Ranch, and strikebreakers were brought in from other counties. The strikers encountered other tactics designed to contain the protest and prevent other ranches from becoming involved. An injunction was issued in Yolo County Superior Court at the behest of the Nor-Cal Growers Association that restricted picketing. (37) A small wage increase was offered with the intent of keeping as many workers as possible on the job, and luring strikers back to work. When one of Anderson's top associates was served with a court order regarding unsafe conditions at the Mace I labor camp, the state inspector wrote in his report:

"Hank Stone, when served with the papers, refused to take them, kicked them out the door, where they fell to the ground by the steps...Anderson was not available, though car parked at office." (38)

By the end of the 1974 tomato harvest the strike had ended and Anderson's tomatoes were harvested with only minimal losses. Despite the strike he had won his gamble.

With his tomato profits, Anderson bought the 7,400 acre Mace ranch the following December. His new found success also led him to drop his crop financing agreement with the locally based Production Credit Association. On December 4, 1974, he signed a new crop credit agreement with the Crocker National Bank, one the state's largest banks. (39) Clearly, Anderson was now a major factor in California tomato farming.

Tomato profits also provided the base for expansion into related industries. He purchased the California Dehydrating Co., a West Sacramento rice drier. He also bought two trucking companies. According to Anderson, "We got into trucking

because we had so much fruit to move that we couldn't find anybody to do it for us. So we bought G. P. Trucking." (40) By 1979 his investments included:

- California Dehydrating Co., a West Sacramento rice drier
- G. P. Trucking Co., Inc., a trucking company
- A. W. Hays Trucking, Inc., a trucking company
- Sam Hamburg Farms, a 6,000 acre ranch in Merced and Fresno counties
- Anderson Farms Co., a 50,000 acre farming and ranching operation
- Fat City Feed Lot, Inc., a cattle feed lot in Monterey County
- Yolo Land and Cattle Co., a livestock partnership with Henry Stone
- Chew Brothers Farms, a farming partnership in Yolo and Solano counties
- Cranco, a joint venture farming and ranching operation in five states
- And Bar Co., a 16,000 acre farming partnership in Glenn County

In addition to these operations, Anderson is a leading figure in a group of investors that bought the 148,000 acre Dangberg Land and Livestock Co. in early 1978. (41) This latter company also owns valuable timber land that Anderson has recently contracted for cutting with major lumber companies.

The remarkable growth and expansion of Anderson's operations led to a major shift in his financing. By 1976 leading national insurance companies, such as Prudential Insurance Co. of America and Connecticut Mutual, had joined Crocker National Bank in providing funds for Anderson's ventures. (42) At the same time he also expanded his land purchases to obtain ownership control of a majority of the cropland that he once leased from others. And, more recently, he has begun to move out of farming directly by contracting with small scale growers to plant, cultivate and irrigate crops that his companies ultimately harvest.

It should be clear from this analysis that leasing and credit play a central role in farm expansion. Without the ability to operate on land that is not under direct ownership, Anderson would never have been in a position to take full advantage of the sudden rise in the price of canning tomatoes in 1974. And

without credit, in the form of crop financing as well as leasing of tomato harvest machines (a form of credit), Anderson could not have been able to plant and harvest such a large crop.

Three years ago Anderson introduced the newest technology into his tomato fields. He equipped his harvesters with electronic sorting equipment to automatically separate green fruit from the red ripe product. The equipment enabled him to cut his labor force from 2,000 down to 450. "Without mechanization, we would not be here," Anderson says. (43)

It is evident from this review of Anderson's operations that his expansion came as a result of a favorable combination of factors. These include the ability to lease large tracts of suitable land, access to substantial credit and the historical accident of having put together sufficient resources to take advantage of a 62% price increase in a single year for his most important crop. The profits accrued were then transformed into owned assets through extensive land purchases and other investments. In a sense, his history is a microcosm of the process of transforming the benefits of successful business operation into ownership of productive resources such as land and machinery.

Chapter IV

SUMMARY AND CONCLUSIONS

The principal result of this study is the discovery that the largest 3.7% of California farms conduct operations on 59% of the state's cropland. Moreover, it has been shown that the degree of concentration is significantly greater than previous studies have indicated. In part this is because the most thorough source of data previously available, the Census of Agriculture, tends to understate the extent to which multi-unit farm operators have become major factors in California farming. By counting the separately managed farms of such multi-unit organizations as completely autonomous units, the Census inadvertently masks an important contemporary trend: the expansion of farm organizations through the acquisition or merger of previously independent farms in widely separated parts of the state.

A significant outstanding question that remains to be addressed is the rate at which California farm businesses are becoming more concentrated. It is well established that farms are becoming fewer in number and that those that remain are getting bigger. Having established a methodology that can measure the relative importance of large scale farming in California with some degree of precision it is of considerable interest to examine how rapidly these businesses are expanding. An appropriate approach to this problem would be to repeat the survey that we have conducted within a few years and to compare those results with those of the present study.

Another important result of this work is the finding that farm operator leasing of cropland from non-operator owners is as extensive for large scale farm businesses as it is for small scale operators. In fact, leasing by some operators is a major factor in the process of farm expansion. This leads to another question: who owns the land? The methodology used in the present study could be readily transferred to a study of California farm land ownership. By

tracing identities of principals in land owning partnerships and corporations it would prove possible to determine the degree of concentration of ownership of California farm land with a precision significantly greater than has been possible in previous studies. Unlike our survey of farm operators, which can be examined in the context of the Census of Agriculture, there is no "Census of Land Ownership." Thus, a survey of ownership of agricultural land would be an important step toward such a land census.

The data collected in this study enable us to make a preliminary statement regarding the extent of concentration of ownership of California cropland. We find that for the cropland farmed by the 211 largest farm businesses the ten leading landowners own roughly the same proportion of cropland as is farmed by the ten leading farm operators. Based on the data presented in Table VII, see p. 13, the ten leading landowners held an aggregate of 520,697 cropland acres, or 21.5% of the cropland farmed by the 211 largest farm operators. This can be compared with an aggregate of 563,586 cropland acres farmed by the ten largest farm operators among the same 211, or 23.3% of the total (see Appendix B for the basic data).

Finally, we find that the 211 largest farm operators in California have an average of 11,460 acres of cropland, roughly 18 square miles of cropland per operator. This scale size is significantly greater than any previous work has suggested.

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It should also be noted that Census data are available regarding the distribution of farms according to size of harvested cropland. However, those data have limited usefulness for two reasons. First, the aggregate harvested cropland acreage in each size class is not reported. Thus, even though the reader can learn that California has 556 farms reporting at least 2,000 acres of harvested cropland, it is not possible to learn the fraction of the state's total harvested cropland that these farms control. Second, the Census reported 10,629,829 acres of cropland but only 8,307,246 acres of harvested cropland. The difference is 2,322,583 acres, or roughly 20% of the state's cropland, and consists of land planted to vineyards or orchards that are not yet mature as well as other categories of non-harvested crops.

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Appendix A

IDENTIFICATION OF CALIFORNIA FARM OPERATORS AND FARM OPERATOR DATA

Owing to the absence of a listing of California farm operators according to size (whether size measures sales, assets or acreage) it was necessary to compile raw data from public records. The main source, in terms of volume of data, is the USDA Agricultural Stabilization and Conservation Service (ASCS). County offices of ASCS keep records of the operations of all farm operators who participate in USDA subsidy programs. Officials administering such programs estimate that at least 60% of commercial farm operators in California are listed in one or another county office of ASCS.

Records in all county ASCS offices in California were consulted in the period beginning December 1977 and extending through June 1979. Most offices were consulted twice during that eighteen month period. In the first phase of consultation data were compiled for all farm operators listed in a particular county ASCS office that have at least 1,000 acres of total farmland. For each farm operator the data compiled were:

Name of farm operator, city

Total farmland (termed "gross acres" by the ASCS)

Cropland (termed "net acres" by the ASCS)

County

Each such entry was recorded on an index card and the resulting composite file, for all County ASCS offices in California, disclosed a large number of instances in which a particular farm operator name appeared to be represented in two or more counties. All of the latter cases of possible multi-county farming operations were separately listed to prepare for a second phase of consultation of California County ASCS records.

The second phase of consultation of ASCS records began in January 1979 and extended through June 1979. In this phase two types of data were compiled:

1.) For all farm operations with at least 5,000 acres of cropland and represented in only a single county's ASCS records, names and acreage figures of land owned and land leased by that operator were compiled. These data formed a major part of the analysis of leasing and ownership patterns.

2.) For all operators represented in at least two counties' ASCS records, data on land owned and land leased were compiled if the indicated aggregate cropland acreage exceeded 2,000 acres. In a few instances it was determined that separate ASCS records in different counties did, in fact, refer to the same land and were, therefore, duplicate records. In most cases, however, it was determined that the separate ASCS records refer to different lands. To establish that these separate reports did refer to the same operator the employer ID numbers recorded on the distinct county reports were compared. If the employer ID number did match and the separate ASCS records referred to different lands then the separate cropland and gross farmland figures were aggregated. A small number of instances were found in which farm operators in different counties happen, coincidentally, to use the same name. For example, Bonanza Farms is used as the business name by a general partnership that farms in Kern County, and the same name is used by a California farming corporation operating in Imperial County. None of the general partners of the Kern County Bonanza Farms are officers or directors of the Imperial County Bonanza Farms. In such cases the separate reports were not aggregated but instead treated as completely independent entities.

Because the ASCS records pertain to as few as 60% of California farm operators, it was necessary to seek other public record sources for additional data. A significant number of California farm operators lease federal grazing land from

the Bureau of Land Management (BLM). In cases where a single farm operator has exclusive use of a particular BLM parcel the land is equivalent to other leased parcels and should be added to the gross farmland of the operator in question. Data on 1978 leased grazing lands were obtained directly from the six BLM District Offices within California. Data available from this source included:

Name and address of farm operator

Total farmland leased from BLM

BLM Resource Area

AUMS total (aggregate animal unit months)

Cases in which grazing leases are shared by two or more farm operators were carefully excluded and totals were entered onto index cards. In a very large number of cases it was determined that farm operators not identified in the ASCS listing were represented in the BLM listings.

A third major source of data was the U. S. Forest Service of the USDA. Substantial portions of California National Forest lands are leased to farm operators for grazing. These leased lands are not available for the exclusive use of a particular farm operator so that it is not meaningful to include these lands in the figures attributed to individual operators. However, each farm operator holding a U. S. Forest Service grazing permit is required to complete Form 2200-130 Grazing Permit Data that happens to include a complete accounting of all lands owned or leased for exclusive use by that farm operator. The categories reported are "range", "improved" and "cultivated". In all cases the data were aggregated with "cultivated" land identified with cropland (in the sense of "net acres" of ASCS terminology). Total farmland was identified as the sum of all three categories in both the owned and leased classifications. Some 780 separate reports were obtained from the U. S. Forest Service California headquarters in San Francisco. These comprise all reports filed by grazing

permit holders in the 17 National Forests within California. Once again, a substantial number of cases were found in which reporting farm operators were not represented in either the ASCS or BLM listings. In each case an index card was prepared showing:

Name and address of farm operator

Total farmland

Cropland (cultivated land)

National forest

A fourth data source was available in UCC filings with state and county government offices. Under the provisions of the Uniform Commercial Code of California (UCC) business enterprises that enter into credit agreements that involve crops as collateral must report that fact together with a description of the lands on which the crops are grown to the County Recorder in the county where the land is located. These UCC reports are available for public inspection and, for several counties for which ASCS data seemed inadequate, were systematically searched. More than 100 previously unidentified farm operators, each with more than 1,000 acres of total farmland, were identified by this procedure.

A fifth source of data pertained only to farm operators with land in Monterey County. Each year the Monterey County Agricultural Commissioner publishes a map of the county showing the identity of farm businesses conducting farming operations on each parcel of cultivated land. From parcel area and Monterey County Assessor's records it was possible to determine total farmland acreage for a number of farm operators in that county for which no other record could be found. Unfortunately, no other county in the state bothers to compile this kind of data on an annual basis.

Additional names of farm operators that were candidates for inclusion in our listing of farm operators with at least 1,000 acres of total farmland were found in the annual publications from Dun and Bradstreet: Million Dollar Directory

and Middle Market Directory. All California listings with the appropriate SIC codes were listed and searched in the counties where the listed business address is located. Both ASCS and UCC filings were searched for these names. In a majority of cases the Dun and Bradstreet listings were already included from other data sources (such as ASCS). However, in a handful of cases previously unidentified names were found to be represented and, in a few cases, sufficient data were located to warrant inclusion. For example, Thomas S. Castle Farms, Inc., was identified in this manner and UCC filings were located in five counties yielding an aggregate of more than 5,000 acres of farmland. This farm operator would not have been determined in any other way.

A total of approximately 230 farm operators with at least 5,000 acres of cropland each were identified in the above described process. These farm operators comprise the "preliminary" list.

In the final phase of farm operator identification and data collection all of the farm operators on the "preliminary" list were searched in the following manner:

- 1.) Name searched at the California Secretary of State, Corporate filing division. In this manner all farm operators that are corporations operating under their own name were identified. In a few cases it was found that the farm operator name on the "preliminary" list was slightly incorrect and needed to be changed.
- 2.) Name searched in the listing of Fictitious Business Names in the office of the County Clerk in the county where the farm operation is located as well as in the county, if different, where the business address is located.
- 3.) Name searched at the Index Section of the California Department of Corporations to determine if filings are available for that farm operator. All available filings were studied.

4.) Name searched in the Directory of Corporate Affiliations, a directory of major U. S. corporations that also indexes names of all subsidiaries of these corporations. In this manner it was found that, for example, S & J Ranch, Inc., is a subsidiary of the Apache Corp.

5.) For all farm operators that are publicly held corporations, or are subsidiaries of publicly held corporations, copies of the relevant corporation annual report and SEC Form 10-K Annual Report were obtained.

6.) For all limited partnerships a copy of the Certificate of Limited Partnership was obtained from the appropriate county office.

For all but a handful of farm operators on the preliminary list data were found in at least one of the above sources. In the case of several operators no records were found in any source. On this basis eight operators were dropped from the preliminary list on the grounds that no regular business record exists for these. It is possible that the original listing may be in error or that the business may have been discontinued. The two largest farm operators that were dropped were:

Dave Baker, Kern County	11,948 acres (cropland)
Adobe Ranch, Madera County	9,698 acres (cropland)

Based on information obtained from the Statements of Fictitious Names and Corporate filings a number of presumably independent farm operators were found to actually be under identical ownership or be very closely related. For example, Sam Hamburg Farms was found to be wholly owned by John B. Anderson, as is Anderson Farms Co. This aggregations of names on the preliminary list reduced the final total to 211.

In addition to providing data that led to the reduction of the preliminary list down to the final total, these sources also provided supplemental information that, in some cases, included acreage figures and crop identification. In all

cases where acreage figures were found in these supplemental sources the ASCS acreage figure was lower, in many cases referring to only some of a number of independently managed farms of a particular farm operator.

Information regarding crops were obtained from SEC filings, California Department of Corporations filings, UCC filings, and listings of participants in State Marketing Order Programs obtained from the California Department of Food and Agriculture. Finally, the publication The Packer Red Book 1976 was consulted to supplement these data.

Appendix B

DIRECTORY OF 211 LARGEST CALIFORNIA FARM OPERATORS BY 1978 CROPLAND SIZE

This appendix contains a listing in cropland size order of the 211 largest California farm operators identified in this study. Each of these conducted farming operations on at least 5,000 cropland acres as of 1978. For each such operator we show (where available):

- Name of operator, business address
- Cropland acreage, total farmland in California (including range land)
- Form of business organization
- Counties in which farming operations are conducted
- Crops grown
- Sales and total assets
- Names of affiliated farming businesses
- Names of principal persons involved in the business

Because of the limited information found in the public record, it was not possible to obtain all of the desired data for each farm operator. Accordingly, the listing was divided into two parts. For the 47 farm operators who each have 12,500 acres or more of cropland in California an extensive effort was made to find all of the desired information. For the remaining 164 only the bare essentials are included.

Unless indicated by citations in the body of the listing, information sources for all listed operators are as follows:

- Business address - Corporations: California Secretary of State
Partnerships: Statement of Fictitious Business Name
- Cropland - USDA, Agricultural Stabilization and Conservation Service (ASCS)
supplemented by UCC Financing Statements or corporate filings
- Counties - USDA, ASCS supplemented by UCC or corporate filings
- Crops - Listings of participants in State Marketing Orders, California
Department of Food and Agriculture supplemented by UCC or
corporate filings and The Packer Red Book 1976
- Principals - Corporate filings or Statement of Fictitious Business Name
- Sales - Corporate filings or Dun and Bradstreet Million Dollar Directory

More detailed information regarding the methodology used and procedures followed can be found in Appendix A of this report.

1 J.G. Boswell Co.
333 S. Hope St., Suite 4600
Los Angeles

Cropland: 147,505 acres
Total land: 206,021 acres
Sales: \$115.5 million (1976)

also: P.O. Box 877, Corcoran

California corporation

President: James G. Boswell II

Counties: Fresno, Kern, Kings and Tulare

Crops: cotton, feed grains and cattle operations

J.G. Boswell Co. is the nation's largest cotton grower. 1976 assets of \$166.8 million include the California operations as well as ranches in Arizona, Oregon and Australia. In 1976 the company earned after tax profits of \$21.8 million, representing a 16.5% rate of return on invested capital. The largest owners of Boswell common stock are

The James G. Boswell Foundation	24.6%
Ruth C. Crocker	11.6%

Ms. Crocker is an aunt of Otis Chandler, publisher of the Los Angeles Times.

Boswell Co. owns approximately 180,613 acres of California farm and ranch land including a 36,311 acre cattle ranch in Eastern Tulare County. The latter ranch is owned by Boston Ranch Co., a wholly owned subsidiary of J.G. Boswell Co., and operates under the fictitious business name of Yokohl Valley Cattle Company. Another Boswell subsidiary is the J.G. Boswell Farm Loan Company, a provider of crop loans to farm operators. This subsidiary entered into an agreement in May 1978 to furnish up to \$3,700,000 in crop financing to Roberts Farms, Inc., see Farm Operator No. 18, p. 55. Collateral for the loan is the Roberts owned Kern Lake Farms, Inc. property in Kern County. This farm is presently farmed by Boswell under lease agreement with Hollis Roberts.

J.G. Boswell's board of directors includes Henry M. Bowles, owner of 50% of Bowles Farming Company, see Farm Operator No. 56, p. 68, and Robert A. Magowan, Chairman of Safeway Stores. Boswell's ties to the Bowles family originated with the 1973 acquisition of Buena Vista Farms, a 30,000 acre Kern County farming operation, in exchange for newly issued preferred stock of J.G. Boswell Co. Henry M. Bowles today owns about 30% of the company's preferred stock.

Boswell is a partner in the joint venture Tulare Lake Representatives, see Farm Operator No. 52, p. 67. The other partners are Gilkey Farms, Inc., Farm Operator No. 63, p. 69; James & Jess Hansen of Harp & Hansen, Farm Operator No. 87, p. 72; Newton Bros., Farm Operator No. 141, p. 80; Salyer Land Company, Farm Operator No. 2, p. 44; South Lake Farms, Inc., Farm Operator No. 3, p. 44; and Westlake Farms, Inc., Farm Operator No. 5, p. 46.

Sources: California Dept. of Corporations, File No. 301 3442
Sacramento Bee, December 11, 1977, p. C11
Tulare County Assessor Records
Kings County Official Records, Vol. 1130, p. 931