California County Agricultural Commissioners'
ANNUAL CROP REPORT MANUAL

USDA
National Agricultural Statistics Service
CALIFORNIA FIELD OFFICE
P.O. Box 1258
Sacramento, California 95812
(916) 498-5161
www.nass.usda.gov/ca

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I. INTRODUCTION

A. **NEED FOR COUNTY CROP REPORTS:** Providing a statistical description of county agricultural production in an annual crop report is one of the functions of the California County Agricultural Commissioners. This manual is designed as a guide for the Commissioner and county staff members to accomplish the task of collecting crop and livestock data, compiling the relevant statistics and writing the annual crop report.

Providing crop statistics is basically a way to stabilize the agricultural marketplace. Planning for harvesting, processing, pricing, transportation, and credit is especially dependent on accurate knowledge of the current crop situation. Crop data users include the following:

1. Ranchers and Growers: For comparison to other producers and for planning future production.
2. Agricultural Suppliers: For locating dealerships, in allocating and distributing seed, fertilizer, machinery, fuel, etc.
3. Agricultural Credit Suppliers: For preparing production budgets, estimating returns and market feasibility.
4. Agricultural Research and Education Agencies: For planning programs and projecting trends.
5. Agricultural Regulatory Agencies: For locating production and assessing program applicability, allocating agricultural burning permits and other regulatory activities.
6. Transportation Agencies: For estimating hauling needs, road loads, fuel use, etc.
7. Farm Labor Offices: For estimating labor needs.
8. Health and Disease Programs: Especially those that are animal-related.

B. **IMPORTANCE OF COUNTY CROP REPORTS IN CALIFORNIA**: County crop reports in California are especially valuable since counties cover large areas, vary in climate and crop production capabilities, and produce as many more than 400 commodities. Nine of the Nation's top 10 producing counties are in California.

C. **RELATIONSHIP TO STATE STATISTICS PROGRAM**: Since many specialty crops are unique to California and are not included in the National and State data collection system, the county reports in California are the sole source of information. For major crops, the National system of crop reports is a series of estimates released during the growing and harvesting period and at the end of the crop season, while the county reports summarize the total production of a calendar year. Each of these two data sets is collected at a different time and with some variation in the point of valuation. There is also a variance in the sampling systems; the State and National surveys are designed to be as statistically reliable as possible at the State and National level, but the sampling system does not provide enough reports from each county to be statistically reliable at that level. See Appendix F "Why Data Sets Differ" for a more complete explanation.

D. **AGRICULTURAL CODE REQUIREMENTS AND MEMO OF UNDERSTANDING**: In two documents, 1) the County Agricultural Commissioner in California and 2) the Memo of Understanding between the National Agricultural Statistics Service (NASS) and the County Agricultural Commissioners and Sealers Association (CACASA) that are reprinted on pages 2 to 4, the responsibility for the annual county crop report is well established. These statements have grown out of the Agricultural Code, Section 2279 that states:

"The Commissioner shall compile reports of the condition, acreage, production, and value of the agricultural products in his county. The Commissioner may publish such reports and shall transmit a copy of them to the Director."

The Memo of Understanding includes details about what is expected from both the CACASA and NASS. Uniformity is promoted and NASS is committed to the provision of procedural manuals for compilation of reports. Hence, this publication is a revision of the manual published in 2002.

California Agricultural Commissioners and Sealers Association
Memorandum of Understanding

California Department of Food and Agriculture

And

California Agricultural Commissioners and Sealers Association

Compilation of Agricultural Statistics

The functions and responsibilities of the California Department of Food and Agriculture shall include the following:

1) To promote uniformity in all phases of county crop reporting, as resources allow, so that the annual reports submitted to the Secretary will be compatible.

2) To publish agricultural statistics in the *CDFA Annual Resource Directory* as provided by County Agricultural Commissioners and summarized by USDA.

3) To provide funding to USDA/California Agricultural Statistics to handle mailing and subscription services for the *Annual Resource Directory*.

4) To provide funding to USDA/California Agricultural Statistics to help offset Agricultural Statistics expenses incurred in analyzing and preparing the *Agricultural Commissioner's Data* publication each year.

5) To compile and publish disaster damage totals submitted by County Agricultural Commissioners and other sources as the need arises in a manner consistent with other agencies.

6) To provide counties with commodity data that becomes available through State statistical programs.

7) To consult with County Agricultural Commissioners on mutual problems.

8) To honor the confidentiality of county data provided by the county for special purposes.

9) To promote the use of the published county data among the State's agencies, private individuals, and business organizations.

The functions and responsibilities of the County Agricultural Commissioners shall include the following:

1) To collect and prepare the basic annual crop report data in a manner that will provide the most reliable and accurate estimates of acreage, yield, production, and value.

2) To present the material to the Secretary in a uniform manner so those reports are comparable.

3) To consult with Department representatives on problems concerning data collection and statistical methods of compilation.

4) To maintain confidentiality of basic data obtained from individuals and firms providing such data.

5) To compile and report crop disaster damage totals to the Secretary as needed.

6) To mathematically review data before publication.

7) To submit crop report data to the state by April 1st.

(Replaces CPS-AS1 originally adopted in Sacramento, January 11, 1956; reaffirmed December 5, 1968. Edited and revised December, 1974. Reaffirmed May 23, 1975. Revised at Lake Tahoe, May 24, 1999. Revised in Sacramento, December, 2010.).

Document on file with CDFA.

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
AND THE
CALIFORNIA AGRICULTURAL COMMISSIONERS AND SEALERS ASSOCIATION

FEBRUARY 2002

COMPILATION OF AGRICULTURAL STATISTICS

The functions and responsibilities of the **California Department of Food and Agriculture** (CDFA) shall include the following:

1) To promote uniformity in all phases of county crop reporting, as resources allow, so that the annual reports submitted to the Secretary will be compatible.

2) To publish agricultural statistics in the *CDFA Annual Resource Directory* as provided by County Agricultural Commissioners and summarized by USDA, Agricultural Statistics Service.

3) To provide funding to USDA, Agricultural Statistics Service, to handle mailing and subscription serviced for the *Annual Resource Directory*.

4) To provide funding to USDA, Agricultural Statistics Service, to help offset Agricultural Statistics expenses incurred in analyzing and preparing the *County Agricultural Commissioners' Data* publication each year.

5) To compile and publish disaster damage totals submitted by County Agricultural Commissioners and other sources as the need arises in a manner consistent with other agencies.

6) To provide counties with commodity data that becomes available through State statistical programs

7) To consult with County Agricultural Commissioners on mutual problems.

8) To honor the confidentiality of county data provided by the county for special purposes.

9) To promote the maximum use of the published county data among the State's Agencies, private individuals, and business organizations.

The functions and responsibilities of the **County Agricultural Commissioner** shall include the following:

1) To collect and prepare the basic annual crop report data in a manner that will provide the most reliable and accurate estimates of acreage, yield, production, and value.

2) To present the material to the Secretary in a uniform manner so those reports are comparable and will be of the maximum value to the Department.

3) To consult with Department representatives on problems concerning data collection and statistical methods of compilation.

4) To maintain confidentiality of basic data obtained from individuals and firms providing such data, where permissible under State and federal law.

5) To compile and report crop disaster damage totals to the Secretary as needed.

(Replaces CPS-ASI originally adopted in Sacramento on January 11, 1956; reaffirmed December 5, 1968; edited and revised December 1974; reaffirmed May 23, 1975; revised at Lake Tahoe, May 24, 1999.)

Signed by Mr. Bishop	02/06/02
Karl Bishop, Executive Secretary -- CACASA	Date

Concurred in by the Secretary, California Department of Food and Agriculture:

Signed by Mr. Lyons	01/23/02
William (Bill) J. Lyons Jr., Secretary -- CDFA	Date

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
CALIFORNIA AGRICULTURAL COMMISSIONERS AND SEALERS ASSOCIATION
AND THE
NATIONAL AGRICULTURAL STATISTICS SERVICE

PROJECT: Exchange of California Agricultural Statistical Information

LEADERS: President, California Agricultural Commissioner and Sealers Association, and the Administrator, National Agricultural Statistics Service, United States Department of Agriculture.

LOCATION: Sacramento, California

DATE EFFECTIVE: July 1, 2011

LEGAL AUTHORITY: Organic Act: National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended; and the applicable laws of the United States and the State of California.

OBJECT: To establish and maintain a cooperative agreement to coordinate activities between the National Agricultural Statistics Service and the California Agricultural Commissioners and Sealers Association in the collection, analysis and publication of statistical data for California counties. The agreement would reduce respondent burden and limit duplication of effort.

FUNCTIONAL BASIS: The National Agricultural Statistics Service, United States Department of Agriculture, hereinafter referred to as "NASS," is charged with the responsibility for a national program of work of long-standing in the collection and publication of production marketing statistics. In the conduct of the Federal program, established in accord with Congressional authority and appropriations, the NASS is primarily concerned with national estimates and estimates for individual States.

The California Agricultural Commissioners and Sealers Association, hereinafter referred to as the "CACASA", has numerous responsibilities for managing programs and agricultural enforcement activities at the county level. These programs include, amongst others, compiling an annual crop report and carrying out the 100 percent pesticide use reporting requirement.

The NASS and the CACASA, cognizant of their basic authorities and responsibilities, recognize that certain goals can be most efficiently and economically accomplished by combining their efforts.

METHOD OF PROCEDURE:

Part 1 – The NASS

a) Through the NASS California Field Office, will work with CACASA to eliminate, to the extent possible, duplicate requests for crop report information from producers and processors.
b) Will provide County Agricultural Commissioners with commodity data, when available through NASS Federal and State cooperator surveys, of value to counties in compiling the county annual crop report when requested in writing by those Commissioners.
c) Will provide training requested by County Agricultural Commissioners on a regional basis, to further enhance the crop reporting process.

Part 2 – The CACASA

a) Upon request will provide to the NASS California Field Office data collected by the County Agricultural Commissioners and useful to the Federal program.
b) Upon request will provide all publicly available data from the pesticide permitting and use reporting systems of the county including names, addresses, and ID numbers.

Part 3 – Mutual Understanding It is mutually understood and agreed that:

a) This Memorandum of Understanding is to define in general terms the basis on which the parties concerned will cooperate, and does not constitute a financial obligation to serve as a basis for expenditures. The responsibilities assumed by each of the cooperative parties are contingent upon their respective authorizations under Federal or State statutes.
b) It is of the utmost importance to protect confidential information, including the data itself, as well as the source. In the case of Federally-collected information, counties will abide by U.S. Code, Title 7, Section 2276 which (1) prohibits use of voluntarily supplied data for any purpose other than the development or reporting of aggregate data, (2) prohibits disclosing information to the public which does not protect the identity of the person supplying the data, (3) specifically states that individual reports shall be immune from mandatory disclosure, including the legal process, and (4) shall not be admitted as evidence or for any other purpose in any action, suit, or other judicial or administrative proceeding. For county-collected information, NASS will adhere to the same confidentiality requirements.
c) Nothing herein or in the performance of the work contemplated hereunder shall be used for the political advancement or advantage of any official or employee of either party to this Memorandum of Understanding.
d) Both the NASS and the CACASA reserve their respective rights to collect other information than that relating to the joint program of work covered by this agreement, and such data may be obtained from any sources and by any means available.

MEMBER OF CONGRESS: No member of or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement or to any benefit that may arise there from.

DURATION: This Memorandum of Understanding shall continue in force indefinitely; PROVIDED, however, that this Memorandum of Understanding may be terminated or amended at any time by mutual consent, or by either party hereto, by giving written notice to the other party not less than 30 days in advance of the desired date of termination.

Mary Pfeiffer, President - California Agricultural Commissioners and Sealers Association — Date 6/2/2011

Dr. Cynthia Clark, Administrator - National Agricultural Statistics Service, U.S. Department of Agriculture — Date 5/9/11

II. ORGANIZING FOR THE ANNUAL CROP REPORT

The approach each County Agricultural Commissioner takes to collecting and publishing an annual crop report varies widely in California because of the variety of products to document, the variation in resources available in different offices, and the historical pattern of data collection that each county office has developed. Recognizing that each county needs to develop a system that best suits its needs and resources, the following sections of this manual will provide guides and instructions that can be adapted to each county's unique circumstances.

Some of the initial steps in the data procurement process are universal to all counties since certain basic data must be obtained. General steps in the crop report preparation include the following:

A. Listing data needs
B. Reviewing possible methods for obtaining needed data
C. Choosing method based on probable cost and reliability
D. Collecting the data
E. Confidentiality
F. Estimating totals from available data
G. Putting estimates into useful forms for distribution

A. **LISTING DATA NEEDS:** For each product grown in the county, the report will need a total value that is calculated from:

1. Acreage harvested or number of animals, etc.

2. Yield per acre or pounds per animal.

3. Average price per unit.

Setting up the blank tables that will become part of the final report is a good way to see how much data will need to be collected.

B. **REVIEWING METHODS AVAILABLE:** Several sources can usually be used for each item of needed information. The producers themselves are the most direct source and surveys or interviews can be planned that ask each rancher or grower for his production by personal interview, electronically, telephone or by mail.

In defining the sources that can be used, a Commissioner should consider whether complete data can be obtained from processors, packers, traders, auctions or dealers. It also pays to investigate other public offices that may be collecting the same information including Irrigation District, Water Resources, Soil Conservation District, Farm Service Agency (FSA), Forest Service, and Bureau of Land Management Offices. Other potential sources are county planning agencies and tax assessors. Making full use of such sources will avoid duplication of effort and will save you time and money.

C. **CHOOSING METHOD:** Expenditure of effort and funds will affect the method each Commissioner selects. Complete personal contact provides the most exact information, but this becomes physically and financially impractical in counties where large numbers of producers are located. Telephone, electronic and mail surveys are less expensive than personal interviews. Contacting buyers, rather than producers, is often much less time consuming, but the exactness of data available will depend on processors and packers being able to determine the location of their supplies both within and outside the county. What is produced and what is packed and processed often varies between commodities, and if processors are the major data source, some additions will need to be estimated for the portion of each crop that is sold directly to consumers.

Usefulness of available secondary data depends on its applicability to the county, such as whether the irrigation district boundaries coincide with county lines or district divisions, the timeliness of a particular soil survey and the reliability of information collected by zoning offices and tax assessors.

More suggestions and discussion of the alternatives will be presented in the sections on general data sources and specific crops.

D. **COLLECTING THE DATA:** Planning the data collection process is largely a time allocation problem. Getting good information is invariably more time consuming than is expected. Each Commissioner is faced with a constant flow of decisions to be made on staff will devote to data collection. Data collection will be covered in more detail in Chapter III.

E. **CONFIDENTIALITY:** Confidentiality of statistical data is of upmost importance to statisticians involved with data collection, tabulation, and publication of summary data. Confidentiality refers to names and addresses of reporters as well as the actual reported data. It is paramount with voluntarily reported data.

At the federal level, the U.S. Code, Title 7 includes a section on "confidentiality of information" that is of significance to the USDA's National Agricultural Statistics Service:

(a) Authorized Disclosure: In case of information furnished under a provision of law referred to in subsection (d) of this section, neither the Secretary of Agriculture, any other officer or employee of the Department of Agriculture or agency thereof, nor any other person may –

(1) use such information for a purpose other than the development of reporting of aggregate data in a manner such that the identity of the person who supplied such information is not discernible and is not material to intended use of such information; or

(2) disclose such information to the public, unless such information has been transformed into a statistical or aggregate form that does not allow the identification of the person who supplied such information.

(d) Specific Provisions for Collection of Information: For purposes of this section, a provision of law referred to in this subsection means –

(1) the first section of the Act entitled "An Act authorizing the Secretary of Agriculture to collect and publish statistics....."

It should be noted that the two memorandums of understanding (MOU) between the (1) California Department of Food & Agriculture and the California Agricultural Commissioners & Sealers Association (CDFA/CACASA) and (2) the California Agricultural Commissioners & Sealers Association and the National Agricultural Statistics Service (CACASA/NASS) both address confidentiality. See items 8 and 4 in the CDFA/CACASA MOU and, under Method of Procedure, part 3 (b), of the CACASA/NASS MOU.

The California Department of Food & Agriculture's Policy Letter No. I-3 also addresses confidentiality. A current copy follows this section.

One of the most important document regarding confidentiality of data collected as part of County Crop Reports is Government Code Section 6254, which is under the California Public Records Act.

Section 6254. Except as provided in Sections 6254.7 and 6254.13, nothing in this chapter shall be construed to require disclosure of records that are any of the following:

(e) Geological and geophysical data, plant production data, and similar information relating to utility systems development, **or market or crop reports**, which are obtained in confidence from any person.

It is our recommendation that county staff working on the annual crop reports do the following:

1. State on all questionnaires used to collect information for the crop report that "Information is confidential and will only be used for statistics compiled for the county crop report."

2. Shred all questionnaires at your earliest convenience.

Est.: 12/05/60
Rev.: 04/01/77

POLICY LETTER NO. I-3

TO: All Employees

SUBJECT: Public and Confidential Records

Section 6250 et seq. of the Government Code provides for inspection of public records by every citizen and the right to obtain an official copy of any public record. No reason need be given for requesting a public record. Once it is established that a document is a public record its possible use is immaterial as to the right to a copy. Government Code Sections 6254 and 6255, together with Section 1040 of the Evidence Code, and various sections of the Food and Agricultural Code authorize the Department to maintain the confidentiality of certain records when authorized by statute or "on the facts of the particular cast the public interest served by not making the record public clearly outweighs the public interest served by disclosure of the record." Determining which are public records and which are confidential within the meaning of these sections is often difficult. When in doubt consult the Administrative Adviser, the Department's counsel, through normal channels. When an immediate reply is required, advise the person making the request that it is the Department's policy to treat all official records a public unless there is clear authority requiring that confidentiality be maintained and that the matter will be referred promptly to the Department's counsel.

Within these guidelines, Department employees should be guided by the following in responding to requests to inspect or provide copies of records in their possession.

A. The following records are confidential.

1. Personnel records:

   a. Applications for State civil service examinations. Government Code Section 18934.

   b. Employee appeals to the State Personnel Board and communications in connection therewith. Government Code Section 18952.

   c. Information required by the State Personnel Board in connection with appointments, separations from service, or other changes in position or salary or other matter affecting the status of positions or the performance of duties of employees in the State civil service. However, an employee may inspect records pertaining to his or her own service, including comments and item ratings on reports of performance, written and performance tests and oral examinations and medical condition. Government Code Section 18573.

   d. Examination materials and questions, unless inspection is authorized. Government Code Section 18934.

2. Records containing information acquired from private books, documents or papers resulting from an investigation pursuant to Government Code Sections 11180-11183.

3. Individual reports of handlers of farm products required to be filed with the Director, pursuant to the provisions of Section 58775 of the Food and Agricultural Code. Food and Agricultural Code Section 58781 and Government Code Section 6254(k).

4. Reports made by distributors for manufacturers of milk, cream or dairy products pursuant to the provisions of Sections 61444, 62583 or 62712 of the Food and Agricultural Code. Government Code Section 6254(k).

5. Lists of persons reporting, and reports made by farmers, stockmen, processors, dealers, handlers, and others, to the California Crop and Livestock Reporting Service, and tabulated copies of such reports and copies of reports made to the Federal Crop Reporting Board at Washington, D.C., Government Code Section 6254(e), 18 United States Code 1902.

6. Confidential business and financial information, including:

   a. Statements of personal worth or financial date required by the Department to establish qualification for a license, certificate or permit;

   b. Volume of business, costs and prices, customers, financial condition, secret processes and similar information obtained under an expressed or implied pledge of confidence.

However, licenses, permits and certificates issued by the Department are public, as well as bonds filed in support thereof. Government Code Sections 6254(n) and 6255.

7. Records of complaints to or investigations conducted by the Department, the Attorney General, or a police organization for law enforcement or licensing purposes. Government Code Section 6254(f).

8. Records pertaining to pending Board of Control claims or litigation in which the State is involved. Government Code Section 6254(b).

9. Correspondence of and to the Governor or employees of his office. Government Code Section 6254(l).

10. Plant production data similar information obtained under a pledge of confidence. Government Code Sections 6254(e) and 6255.

11. Preliminary drafts, notes, or interagency or intra-agency memoranda, not retained in the ordinary course of business, dealing with confidential matters as described above. Government Code Section 6254(a).

B. The following records may be disclosed only to persons who have direct financial interest in the particular transaction or, upon written release of the principal, may be disclosed to other interested persons:

1. Inspection reports and other records and correspondence indicating that the business operations, premises, equipment, or products of specific persons or firms have been found not to comply with laws and regulations, that products are of inferior quality, or that such premises, crops, livestock, or other products have been found to be infected or infested with pests or diseases. However, the following records are public: Notices of Violation, Citations, Quarantine Orders, Abatement Orders, hearings, and court actions; published results of examination or chemical analysis of official samples of fertilizing materials and economic poisons; and official compilations of weights and measures violations.

2. Certificates of inspection and reports of analysis for individual persons or firms, when such certificate or report is issued as a service upon payment of a fee, and indicates the quality or grade of the products. Examples are: shipping point inspection certificates, field inspection certificates, reports on seed analyses, and canning tomato inspection certificates. However, the fact that the Department made an inspection or issued a report is public.

C. Lists of producers or handlers developed pursuant to Section 58775 of the California Marketing Act of 1937, or comparable authority, may be released only with the approval of the Director and subject to such conditions as will assure that they are to be used for a purpose authorized by law and relating to a proposed or established marketing program, except that such lists are public after introduction in a public hearing pursuant to Section 58782 or similar public hearing.

D. Confidential records may be made available to a cooperating government agency when necessary for Department business, when not restricted by law, and adequate provision is assured to maintain confidentiality. Release of confidential records to some members of the public may well result in making the records available to the public generally. Confidential records should only be released to other public officers having a demonstrated official need for the information.

E. Lists which are compiled and distributed without charge. Other public lists such as names of officials, approved devices and names and addresses of licensees may be furnished upon payment of costs incurred by the Department in preparing the material. Lists of reproduced records will be furnished by Production Service only when so ordered by the division concerned. Production Service will notify the Fiscal Officer of the costs to be recovered.

F. **ESTIMATING TOTALS:** After the data is collected, the summarizing process produces a total value of each crop produced. If blank tables are prepared at the beginning of the process, it is a good measure of progress to see how many blank spaces are yet to be filled. In counties where surveys are conducted, a set of computer spreadsheets or summary sheets is usually designed to enter the data as it arrives.

There are many local variations on the data summary process, but all must produce an estimate of quantity produced and the average price. The product of these two figures is the total value, a universal figure toward which the entire statistics program is aimed.

G. **PUTTING ESTIMATES INTO A USEFUL FORM:** Planning ahead for the duplication and distribution of the annual report will increase its acceptance and usefulness. If pictures and art work are used, they must be located and prepared in advance of the publication deadline. Printing schedules are often such that several weeks lead time is needed.

Costs of distribution are a variable budget item and savings that are detrimental to the effectiveness of the report are often sought in this area. It is recommended that the mailing list be carefully reviewed each year to update addresses and remove those that have moved, gone out-of-business, etc.

The section on publishing the report will give more details and suggestions on getting the data to where it can be most useful.

III. ESTIMATING - GENERAL PROCEDURES FOR ALL CROPS AND LIVESTOCK

A. **PERSONAL CONTACT:** Complete enumeration can ideally be accomplished by personal interviews with 100% of the ranchers and growers in the county. Because this is extremely costly in time and travel, most counties have worked out systems of combining personal contacts with other techniques to save both time and expenses. There is usually a tradeoff between accuracy and being close to the ideal 100% coverage. When large numbers of individual data observations exist, a sampling system can be applied that approaches the accuracy of complete enumeration. However, the numbers of observations in each county are not likely to be large enough to make the sampling system a statistically viable alternative.

The success of personal contacts is often related to how well the interviewer knows the interviewee and on the confidence level that exists between the County Agricultural Commissioner and the growers, ranchers, and businessmen from whom the information is obtained. A long history of carefully maintained confidentiality of information is often the best reputation-building mechanism. This can put newly installed Commissioners and those instituting a complete survey for the first time at a disadvantage. Confidence builds up after the first few years.

Interviewing to obtain information requires skill. An eight-page summary of material on interviewing techniques appears in Appendix A for reference. How the questions are asked often determines the response, therefore an interviewer needs to know the situation well and remain neutral to all expressions of opinion. General guides for interviewing include: (see Appendix A)

1. Be courteous! Put the respondent at ease. Explain what you are doing.

2. Be sincere! Your attitude affects the answers a respondent will give.

3. Be businesslike! Interview energetically and leave promptly.

B. **MAIL SURVEYS:** Counties can often make excellent use of the mail survey technique. At the State level, it is used extensively as it lends itself to covering the large area that California encompasses. Once respondents are used to the mail technique, it becomes a reliable kind of survey for County Agricultural Commissioners to use.

Successful county mail-surveys depend on designing the questionnaire so it applies to the local producers and will easily provide the needed data without making it so complicated that response is discouraged. When the good will of the respondent is at stake, simplicity is an encouragement that must be capitalized upon wherever possible. Some counties have designed separate questionnaires for each commodity and simplified it to be printed on a postcard return. All the growers or ranchers are asked to do is reverse the fold-over card, fill in a few (3-6) blanks, and put the card back in the mail. The return card is pre addressed and coded so it does not need to be signed and the respondent need not fear disclosure of private business data.

A county mail survey is dependent on maintaining a complete up-to-date list of growers and ranchers. When permits, registrations or licenses are issued, list updating may be easily accomplished for the commodities affected. Building and keeping a list of cattle ranchers is often difficult and quite time consuming. Outside help can be enlisted from the Farm Advisor, county cattlemen's association, or longtime residents. In Modoc County, the Agricultural Commissioner's staff reviews one of five valley areas thoroughly each year, using maps and visual inspections to ensure all ranchers have been contacted. In some counties the names and addresses of cattle owners can be obtained from the County Assessor's Office, but in other counties this is not possible due to the separation and confidentiality maintained by both the Agricultural Commissioner and the Assessor. Grazing permit lists may be obtained from Forest Service and BLM (Bureau of Land Management) offices or your survey may be attached to a mailing being sent by the agency. This avoids releasing the name list or compromising the confidentiality of the list.

C. **FOLLOW-UP ON SURVEYS:** Telephone follow-up on mail surveys is especially effective since the respondent is already familiar with the request. Sometimes they will prefer to give the information over the phone rather than fill in a questionnaire.

Some surveys can be accomplished by telephoning the questions and arranging to pick up the information personally at a particular time. Some Commissioners find this a useful system in getting information from dealers and processors who need some time to look up the answers to price and quantity questions, or must ask field staff for yields and county acreages.

Follow-up by mail involves a second notice reminding the respondent of the original request. Although reasonably effective at the State and National level, it does not compare well with telephone and personal contact at the county level, where telephone rates are minimal and face-to-face contact is with members of the same county community.

Confidence and response rates are often improved by providing a copy of the annual report to all respondents. In this way the pledge of confidentiality is recognized and some ranchers and growers find the information useful in their own business planning and analysis. Seeing the information published every year gives them a feeling of participation in an established activity and continued cooperation in a valuable data series is encouraged.

D. **SAMPLING:** When the numbers of the contacts are too large for a complete enumeration, sampling is often proposed as a statistical tool for estimating production, based on information obtained from only part of the total number of growers, ranchers or other contacts. It is a complex mathematical process when carried to a reliable statistical conclusion.

At the county level, the number of observations and the wide variations between them preclude dependence on statistical formulas. In general, the number of observations required for a more reliable estimate of the total increases with the variation between units. Often the variability among acreages and yields in a county is large enough to require that nearly everyone be included in the sample. The sampling formulas work to an excellent advantage in measurement of tolerances on industrial parts or in checking chemical composition of drugs or other manufactured products. Where large numbers of eggs need checking, for example, and variation is likely to be small, a sampling works extremely well.

Adapting sampling techniques to county agricultural conditions is possible in some cases where ranchers or growers can be grouped by size or other characteristics that reduce the variation. Dairies or cattle ranches can be grouped by size of herd (stratified) and sampling used to estimate the production of each size category where many herds are about the same size. Thus, a simplified sampling procedure would be to contact a sample of herds within each group and multiply the average production obtained by the total number of herds within the size group. Drawing the sample at random improves the possibility of its being truly representative of the group. Each situation will have to be treated individually and the actual number of contacts made to constitute a sample will be decided upon review of the known variations (the higher the variation, the larger the sample needs to be) and the amount of time and money available for making contacts. See Appendix B for an example of calculations.

E. **EXPANSION:** Estimating a total from knowledge of a sample is a form of expansion. In most crop estimates, including those where 100% enumeration is attempted, there is a certain group that is unaccounted for and must be estimated on the basis of what information is on hand. Expansion can follow several patterns.

1. From a sample: If 10% of the small growers are surveyed the total is estimated from expanding the average of the sample by multiplying it by 10.

2. From identicals: Where the same farm or ranch is surveyed two or more years in a row, the rate of change can be calculated. The more pairs of identical sources that are available, the more reliable this expansion can be. The simplest form of expansion from identicals consists of obtaining estimates from industry leaders as to how this year's production compares to last year's. This percentage of expansion or contraction is then applied to last year's production for a total current crop estimate.

See Appendix B for an example of expansion.

F. **STRATIFICATION:** Although expansion from a sample can be quite effective in getting much information quickly, there are dangers of incorrect expansion if an influential operator has an unusually high or low production. Stratifying by area, or size, may reduce the hazards of expansion, for instance:

1. Stratify By Area: Expansion from identicals in this case is applied to farms and ranches in the same area, valley, or district where growing conditions are similar.
2. Stratify By Size: Identicals need to be isolated for each size group and the actual expansion calculated would apply only to herds, flocks, or growers of the same size.

At the State level, considerable stratification and sampling takes place, and the pattern may be useful in some counties as well. All extra large producers are labeled "extreme operators" and each must be contacted directly since changes in their production will affect the total significantly. Large growers of a single commodity, well known corporate farming operations, cattle feedlots, and large ranches are given this separate designation and considerable effort is put forth to get complete information from each of them.

The remaining producers are divided into groups by size or area and sampling is practiced to reduce the survey cost. Expansion is done one category at a time. All of this requires a complete list of all the producers and enough knowledge of their size and/or location to classify them into groups. An example of stratification and sampling is given in Appendix B.

G. **WEIGHTING:** Whenever the total group of producers is divided into smaller groups for different treatment in surveying, an average of the entire group needs to reflect the size of each smaller group within the total. Weighting is simply giving each group its own share based on its size (weight) within the total. Each group's total number of units is multiplied by its average and a total of all such multiplications is then divided by the total number of observations, or units counted, to establish an average that reflects the balance of the total group.

Weighting is often used in establishing average prices and can take into consideration the fact that the product is sold for several different uses or at a number of different times throughout the year. High winter vegetable prices need to be weighted by the amount sold in that season to arrive at a reasonable yearly average price. For example, a simple average of 12 monthly prices would not reflect the fact that larger quantities are sold in one season than in another. See Appendix B for an example of seasonal price weighting.

H. **GRAPHS AND CHARTS:** Another tool in the estimation of yields and total production is graphing or charting a series of years immediately preceding the year being estimated. This establishes a trend and the direction of the change can be used to predict what the current year would be if the trend continues. This simple form of projection is most useful when large numbers of observations are averaged out, and therefore the technique is more useful at the National and State level than at the county. Local weather conditions can easily cause county yields to very widely from a trend in any particular year. In California, the variation in climatic conditions between counties is rather wide and also precludes depending on State trends to predict a particular year's production.

Having cautioned against depending on charts at county level, it must be emphasized that they can be a valuable aid in estimating production. When expanding from a sample, it is useful to check the results against a trend chart to see if the sample seems to fit the established pattern. If the sample results are too far from a predicted trend, the survey results must be rechecked or explained or both. Checking sample results against a trend is also a useful way to identify possible bias due to an underestimation. If all conditions were similar, but lower yields were obtained than the trendline predicted, there may be grounds for questioning the natural tendency for growers and ranchers to underestimate. There are very few ways to check on this tendency at the county level, but if the trends indicate unexplained differences, it is good to get opinions of buyers, dealers and growers, and capitalize on any experiments being conducted in the area by experiment stations, cooperative extension programs, 4-H or FFA contests, or private companies. Charts and graphs are time-consuming to set up, but once established, the addition of each year's data is easily done by office staff. Some county offices maintain five-year moving averages that are useful checks on current data. They are used for answering queries about yields and prices for economic plans, financial analyses, disaster designation applications, and similar calculations.

IV. GUIDES FOR COMMODITIES

A. FIELD AND SEED CROPS:

1. Acreage and Production Data: A wide range of sources is available. Complete enumeration through grower contacts is possible where a few producers constitute the entire crop, but often there are too many individual growers for effective 100% enumeration and secondary sources must be used, such as pesticide use records, FSA, Crop Improvement Associations, Water Conservation and Irrigation Districts, buyers, shippers, dryers, cleaners, elevators, gins, custom harvesters, Farm Advisors, seed, chemical, and machinery dealers, and pesticide applicators. During the process of issuing pesticide and burning permits, receiving pesticide use reports and registering organic growers, the Commissioner's staff has a contact with growers and some acreage and yield information can be obtained. Some counties have district inspector assignments and each is responsible for recording the crops in their district. Mapping is accomplished in some counties using such sources as assessor's plot maps, aerial photos, topographic maps, irrigation district or soil conservation district maps, and county road atlases, or a combination of several of these. Field acreages are estimated and a windshield and/or aerial observation trip is made to record the crops and their condition. Much of this can be done while completing other routine inspections.

a. Grains: Irrigation districts are good sources of grain acreage if their boundaries lie within the county. FSA offices may have records, but they usually have less than complete coverage. All of these will emphasize planted acreage while harvested acreage is the required item for the crop report. Pesticide permits provide considerable information, but need to be supplemented by some method of checking how complete their coverage is in any specific year. Grain buyers are good sources of estimates, especially if more than one estimate from this type of source can be checked against similar data from other sources. Fluctuations of considerable magnitude are not only possible, but often occur in response to local weather, water availability, contract prices, and energy costs. This makes projections, trends and charts less reliable at the local level, and increases the need for accurate local data throughout California.

b. Rice: Irrigation district and FSA data may be useful. Maps, pesticide permits, estimates from flying services, rice marketing cooperatives and rice traders are all useful sources and may reinforce each other.

c. Dry Beans: Bean cleaners and bean growers' associations are relied upon by many counties for data. Recorded production and yield should be on a clean weight, and confusion between this and field-run weights should be avoided. Pest control and irrigation district data are also useful in obtaining acreage estimates.

d. Cotton: The National Agricultural Statistics Service collects data and publishes an end of the ginning season report, but the final report is too late for county purposes. FSA, irrigation districts, and pest control operators are good sources, but none have complete coverage. Cotton planting seed volume may be a useful check, but distribution is not usually recorded by county. A cotton acreage report is issued by NASS as of July 1 each year. A State average yield estimate is published in April, but yields by county are not prepared and released until the final cotton crop report issued in June of each year following the harvest. Another source is the data published by cotton brokerage companies that operate within the cotton market centers. Maps of cotton acreage are prepared by the pink bollworm eradication program and provide a good check of plantings in those areas where the program is active. In comparing acreage estimates, allowance needs to be made for whether the measurement includes irrigation ditches and service roads or just the actual planted area.

e. Hay: One of the most difficult crops to quantify is hay since no county estimates are made at the State level and wide variations exist between kinds of crops, methods of harvest and marketing or processing. A survey of growers at the county level is ideal, but in many cases other sources must be found. Possible contacts include: County Farm Advisors, hay buyers, truckers, growers' associations, hay dryers, cubers, pelletizers, and major consumers, such as dairymen, ranchers, and exporters. Irrigation districts will have irrigated alfalfa data. Market News Service offices may be helpful on quantities shipped from production areas and current prices.

f. Silage and Green chop: Corn, sorghum, alfalfa, oats, Sudan grass, canary grass, and other similar crops may be cut and marketed for immediate feeding or storage in piles, pits or silos. Because hauling is costly, and freshness is a factor, this is a localized industry and direct collection of data from producers is advisable. In keeping with the policy of recording pasture and home fed grains, the amount of green chop or silage produced and fed by ranchers to their own livestock should be included.

g. Pasture: Irrigated pasture acreage is sometimes difficult to ascertain from secondary sources. Irrigation and soil-conservation district maps and data may be used in some areas and Farm Advisors may be helpful. Direct contact with producers is the most reliable source. Value can be established through rental rates of similar areas or through the value of harvesting the same crop as green chop, silage, or hay. Rates may be either on an annual income per acre basis or on an animal unit month (AUM) value.

   Payments for government land grazing are excluded since the income does not enter regular commercial channels, is all handled outside the county and government grazing land is not identified as land in farms or ranches. Although some of the value of permits is capitalized into land values, this asset increase is not counted as income. Value of dry land grazing varies greatly with the rainfall pattern and individual ranches may find maintaining the right to graze in a year when there is nothing that animals can eat, is a cost that far exceeds its value. Even though this represents a negative value to the livestock producer, the actual rental payment is counted as income to the total county production.

h. Seeds: Certified seed acreages and production are available from the California Crop Improvement Association (University of California, Davis). Seed companies may provide the data and also may find it necessary to withhold some crops where only a few growers and companies are involved. Non-certified production can be estimated by contacting seed cleaners or growers. Since seed production is considered somewhat specialized and relatively few growers are involved, direct grower contact is the most reliable source. Care should be taken to ensure all data collected are on a clean seed basis.

2. Price Data: Prices reported for field crops in county crop reports should reflect the average prices ranchers and growers receive at the point where they give up ownership. The California Field Office at NASS sends price data with crops by county, to assist in report preparation, in March. Whether producers transport products themselves or hauling is hired, the pricing point is where the product reaches the first buyer in the marketing channel. Averages may need to take quantities and qualities produced into account through weighting. (See Appendix B) Federal price supports are included when the price received by the grower incorporates the subsidy. If the grower received Federal subsidies outside the price system, it is not included.

   a. Grains: Market News Reports are a good source of current prices for specific grades and qualities. Allowances need to be made for qualities that are different from those quoted. Grain buyers, cooperatives, and local elevators may provide price information on request and producers themselves are a good source. Contracts are set early in the growing season or before planting, so the timing of the sale may be more influential than a yearly average market price would indicate. A clear understanding of the local contract terms is essential to setting a county price. Storage costs and government loans or payments are not counted directly, but may influence the price paid to growers and the time of sale.

   b. Rice: Because so much rice is marketed through cooperatives, it is difficult to establish the final price since it has not been determined at the time of the county crop report. Cooperatives may be able to estimate the final total price the growers will receive by January 1 and cash market sales can be used as good indicators, even though the volume sold represents only a small portion of the total. If the final price paid to the grower is considerably different from the January 1 estimate, it may be necessary to revise the report and include the revisions in the year following. Sacramento Valley Deputy Commissioners share their price data with neighboring counties so that the limited information available on the rice price is made available to several users.

c. Beans, Peas, Seeds: Prices of dry beans, dry peas, alfalfa seed, clover seed, and other seed crops should be on a cleaned basis. The price received by the grower at the initial point of sale is used to value the crop. This usually covers the grower's marketing costs of cleaning and transporting to the buying point. Since quality varies and cull beans are marketed separately, some adjustment may be necessary to allow a part of the crop to be valued at a price other than the market quotation.

Prices vary widely between bean and pea varieties and an average bean price will often need to be weighted to make allowances for these differences. Also, varieties can be listed separately if the volume warrants it and no problem of disclosure is apparent, such as:

Baby Lima	Garbanzo
Large Lima	Pink
All Lima	Small White
Light Red Kidney	Black-eyed
Dark Red Kidney	Snap
Fava	Miscellaneous

Seed crops vary from county to county and this makes local information direct from producers, cleaners and buyers a necessity.

d. Oilseeds - Cottonseed, Safflower, Sunflower, Castor Beans, Canola: Vegetable oil processors and oilseed buyers are the best source of price data, while yields and acreages may be obtained direct from growers or through irrigation districts and extension agents. Cottonseed totals can be calculated from lint production since an average of 37.5% of seed cotton weight is lint. (See Appendix B for sample calculation). Contract growing is prevalent for safflower, sunflower, sesame, canola, castor beans, soybeans and rapeseed, contact the contractor for the simplest way to obtain the most information.

e. Hay: Roadside is the most common point of sale for most hay and delivery cost to point of utilization is not normally included in returns to growers. Central market quotations will be higher than roadside, but the difference does not usually represent a return to the producer. Because of the various varieties and grades and methods of sale, some average price will need to be calculated. This derived price can also be applied to the total hay production that is grown and fed on the ranch, but never changes ownership. Good sources of prices are hay buyers, feeders, dairymen and the Market News Service.

f. Cotton: Cotton lint is priced at the point where ownership changes hands and is based on lint weight after ginning. Contracts, futures, and cooperative ginning make the pricing situation somewhat variable, but an effort should be made to estimate what the producer actually received regardless of his method of sale. Timing of the sale also enters into the situation since an entire year is covered by the price estimate. Again, some local judgement will have to be used to estimate the time when most of the cotton was actually sold and the yearly average should be weighted to reflect this variation. (See Appendix B for example of weighting.) Gins, cooperatives, buyers, and brokers are good sources of price data. Pima cotton will need to be separated out because yields and prices vary considerably from Upland.

g. Sugar Beets: Sugar companies supply data on yields, acreage and prices by county. It is now collected and distributed by the Agricultural Commissioner in the county where the processing plant is located.

3. Recommended Units and Point of Pricing:

Crop	Units	Point of Pricing
Barley	Ton	As harvested - all production included. Usually delivered to elevator or storage.
Beans & Peas, Dry	Cwt.	Cleaned basis - as sold by grower. Often sold after cleaning and storage. Weighted average price for all varieties or separate into types.
Corn for Grain	Ton	Shelled basis - price at most common point of sale. Allow for low grades or high moisture as necessary.
Cotton Lint	500# gross weight bales or net weight running bales (with weight stated). Production per acre in pounds. Average price in dollars per pound.	Most common point of sale, ginned basis. Allow for sales contracts, cooperatives delayed payments, retained earnings and other charges.
Cottonseed	Ton	Usually priced at gin or delivered to processor. Use price at point of ownership change (see Appendix B for computing cottonseed from lint production).
Hay and Straw Field Dry	Ton	Baled - at roadside or most common point of sale.
Green to Drier	Ton	Priced as producer receives payment, usually green weight basis. If available data is in dry meal, pellets, or cubes it should be converted to green weight basis since drying cost is not borne by grower.
Oats	Ton	As harvested - most common point of sale. Apply to total production even if fed on ranch.
Pasture & Range (Include grazed stubble)	Acre AUM (Animal Unit Month)	Prices based on rentals per acre. Equivalent hay value also used. Each Animal Unit Month is based on providing the equivalent of one 1,000# cow or 5 sheep with full time pasture for one month. BLM and the Forest Service use this measure and may provide local prices. Also used where range stock is put on irrigated alfalfa, grain stubble or aftermath pasture for short periods.
Rice	Cwt.	Dried basis. Since co-ops handle a large part of the crop, the final price is often not known until following year. Estimate can be made at crop report time based on independent buyers' prices and forecast of coop payments. Price should be checked the following year for possible revision.

Crop	Unit	Point of Pricing
Safflower	Ton	Contract price includes delivery to processor or buyers' storage. Prices may include premium for high oil content.
Silage	Tons	Silage pricing varies with point of sale - uncut, cut and loaded, ensiled or after storage. Much is fed on farm where produced. Value may be set on hay equivalent feed value. Per ton value is roughly one-fourth of alfalfa hay price for corn and sorghum.
Green Chop	Tons	Also priced in comparison to hay. One ton green chop is about equal to one-fourth ton of hay. Varies with quality, time of year and transport cost.
Sugar Beets	Ton	Price is delivered to factory and may include premium for high sugar content. (Do not include direct government payments.)
Sunflower	Ton	As harvested, usually delivered.
Wheat	Ton	Price is usually delivered and may vary with moisture content, protein content, variety and freedom from foreign matter and damaged grain.
Seeds, Other	Ton	Clean basis, price will cover cleaning cost incurred by the grower.
Industrial Crops (May be separate section or included in field crop list.) Jojoba Kenaf Guayule Flax and Flaxseeds Ramie Canola	Ton	As sold by grower, price includes delivery to plant in some cases.

4. Suggested format for Tables in Crop Report:

FIELD CROPS: Acreage, Production, and Value

Crop	Year *	Harvested Acreage	Production		Unit	Value	
			Per Acre	Total		Per Unit	Total

* Variations: If only one year is shown, column may be omitted. Showing current year plus previous year allows convenient view of change from year to year.

Field Crops Commodity List - Suggested sub-sections in parentheses.

Amaranth
Barley (grain -- if pastured, it is included in pasture and range)
Beans, Dry Edible (by variety if possible)
Beans, Castor
Canola
Corn for Grain
Corn for Silage
Cotton Lint (Pima and Upland)
Cottonseed (omit acreage)
Fibers (flax, kenaf, ramie)
Flaxseed
Guayule
Hay (alfalfa and mixtures, grain, wild and green chop on dry basis)
Jojoba
Millet
Mustard Seed
Oats for Grain (include with hay or pasture when used for forage)
Pasture, Irrigated
Pasture and Range, Dryland (may include stubble)
Peanuts
Peas, Dry Edible
Potatoes
Rice
Rye for Grain (forage included with pasture crops)
Safflower
Sesame
Sorghums (separate grain, silage and sugar use)
Soybeans
Straw
Sugar Beets (for sugar or fodder)
Sunflowers
Sweet Potatoes
Triticale
Wheat (Durum and Other)
Wild Rice
Miscellaneous (broom corn, corn nuts or "crazy" corn, peanuts, sugar cane)

Seed Crops - Suggested Table Heading:

Crop	Year *	Harvested Acreage	Production		Unit	Value	
			Per Acre	Total		Per Unit	Total

* If only one year is shown, column may be omitted.

Seed Crop Commodity List - **(Each category may be separated by certified and non-certified since wide variations in price exist.)**

Alfalfa
Clover (alsike, burr, ladino, red, white, etc.)
Field Crops (barley, beans, corn, cotton, flax, oats, peas, rice, safflower, sorghums, sugar beets, sunflower, wheat, etc.)
Grass (Bermuda, bluegrass, brome grass, canary grass, fescue, grama grass, rye grass, timothy, wheat grass, etc.)
Sudan Grass
Trefoil
Vegetable and Vine-crop Seeds
Vetch
Other (except flowers that are included in nursery products)

B. **FRUIT AND NUT CROPS:**

1. Acreage and Production Data: Fruit and nut acreage is established through a combination of sources. The industry sponsors acreage surveys for almonds, grapes, and walnuts. Copies of the survey results are routinely furnished to the counties. Acreage updates to the other permanent crops are based on changes obtained from county commissioners or changes obtained from the industry-sponsored surveys mentioned above. The Commissioners commonly draw on pesticide use data to set their acreage and they are probably the best source of acreage for the crops where a survey was not done. Production data must be obtained locally through contacts with growers, handlers, packers, shippers, processors, etc. In asking each of these for data it is suggested that acreage and total production be requested and yields can be calculated from these data. Asking for yields is less reliable and the answers tend to overlook lower producing acres or carry a bias toward the better producers. The Advisory Boards may provide county production data for the crops covered: raisins, prunes, Clingstone peaches, kiwifruit, pistachios, desert grapes, desert grapefruit, dried figs, avocados, walnuts, dates and apricots. (See Appendix G) Using several sources provides a check or additional data from which an average yield and price can be calculated.

   The citrus crop in many counties blooms in one year and the crop is harvested in the following year. This may be shown in the year column by indicating 2010/11 and using bearing acreage data available for the year of bloom. Farm Advisors are often good sources of yield data.

2. Price Data: Prices of fresh produce are published by the Market News Service. These are on a packed, ready-to-ship basis usually labeled f.o.b. shipping point (f.o.b. = free on board). Where contracts are used, the contracting processor or shipper may provide reports. The problem of cooperatives delaying the setting of the final price is frustrating. A price estimate must be made with or without the cooperative's help depending on the working relationships between the Agricultural Commissioner's office and the dominant coops serving the area.

   Fruit crops move into both fresh and processed product markets. These marketing systems are so different and prices vary enough that averaging the returns is not representative of actual economic income. When possible it is recommended that separate price and quantity estimates be prepared for fruit marketed fresh, that portion that is dried, and the processed remainder, including juice, canned, frozen, pickled and otherwise preserved. Fresh market fruit prices are quoted f.o.b. and this includes packing but not transport to a central market nor brokerage fees. Packers, shippers, and Market News Reports are good sources of price data for fresh market fruits. If a portion of the county's crop is marketed directly through roadside stands, farmers' markets and u-pick operations, an estimate can be made for this part of the crop. Because different prices are received, a weighted average needs to be calculated. (See Appendix B)

   Sales of fruit crops to processors are priced at the point of delivery, usually the processing plant door. In most cases this price covers the cost of delivering the fruit to a grading station or the processing plant. Processors and Advisory Boards are the best sources of price information and the problem of the co-op's inability to establish a price is especially difficult where one co-op dominates the market for a particular county. For dried fruit a dried product price is preferable and is often available from growers who dry their own fruit or from custom drying operations. Some dryers operate on a green purchase weight only and their prices may be reported on that basis or combined with other processors' prices. When an "all grape" or "all apricot" price and quantity must be used to avoid disclosure or to summarize the crop, the dried fruit should be converted to fresh weight based on the most recent drying ratio data published in the "California Ag Resource Directory".

   Nut prices are based on what is received by producers. Almonds are quoted on a shelled basis in most cases now. This creates a possibility of separate sales of hulls and shells, but these should only be included if the producer is paid for them directly, or he arranges hulling and shelling separately from almond meat sales and realizes income from these separate sales. Only income received by growers should be included and processors' income from sale of by-products constitutes grower income only when payments are made to growers for hulls separately from the basic price per pound.

If it is necessary to convert some almond data from in-shell to kernel weight, a precaution is in order since almond kernel weight varies greatly between varieties and between seasons and areas of production. State average ratios are misleading when applied to the county data in this case. Walnuts, pecans, and pistachios are reported on an in-shell basis.

3. Recommended Units and Point of Pricing:

Crop	Units	Point of Pricing
All Fruits, Fresh Market	Ton (If package units are used include weight in pounds.)	F.O.B. packed
Processing	Ton	Point of delivery, usually plant door.
Dried	Ton	Point of sale - dry basis unless being combined with other processing.
By-products	Ton	Include if it is the grower who sells. By-products of canneries and processors not included.
Nuts, Almonds	Ton (Pounds may be used for yields)	Prices delivered to handlers. Value hulls and shells separately if grower received payment separately.

4. Suggested format for Tables in Crop Report:

FRUIT AND NUT CROPS: Acreage, Production and Value

Crop	Year *	Bearing Acres	Production		Unit	Value	
			Per Acre	Total		Per Unit	Total

* If only one year is shown, column may be omitted.

Fruit and Nut Crops Commodity List - Suggested sub-sections in parentheses.
Almonds
Apples (fresh, processed, juice, dried)
Apricots (fresh, canned, dried, frozen)
Avocados
Berries by kind: Raspberries, Blueberries, Boysenberries, Loganberries, Blackberries, Youngberries, Olallieberries (fresh, processing)
Cherries (sweet, sour); (fresh, processing)
Chestnuts
Dates
Figs (dried, fresh, processing)
Filberts
Grapefruit (fresh, processing)
Grapes (raisin, table, wine); (fresh, crushed, dried); (by variety)
Kiwifruit (fresh, processing)
Lemons (fresh, processing)
Limes (fresh, processing)
Macadamia Nuts
Mandarins (including Tangerines)
Nectarines (fresh, processing, dried)
Olives (canned, crushed)
Oranges (Navel, Valencia, Other); (fresh, processing)
Peaches (Clingstone and Freestone); (fresh, dried, canned, frozen)
Pears (Bartlett, Winter, Asian, Other); (fresh, processing, dried)
Pecans
Persimmons
Pistachio Nuts
Plumcots
Plums (fresh, processing); (by variety)
Pomegranates (fresh, processing)

Prunes (fresh, dried, processing); (by variety)
Strawberries (fresh, processing)
Tangelos
Walnuts (English, Black)
Other Fruits and Nuts (Miscellaneous, separate or in total with footnote listing those included): bananas, cactus fruits, carobs, carombola (starfruit), cherimoyas, feijoas, guavas, kumquats, loquats, mangos, passion fruit, pepinos, quinces, zapotes, tung nuts, etc.

C. **VEGETABLE CROPS:**

1. Acreage and Production Data: Harvested acreage and value of production are the desired statistics. Culled produce that is not sold and acres that are not harvested should be excluded. This should be kept in mind when asking questions on acreage and yields since some replies tend to include all planted acres and all production even if not harvested. County Commissioners usually have good contacts with vegetable growers through their permit and inspection programs. Data from shippers and processors are often used and are usually available by contacting a few sources operating in each county. Individual growers, commodity marketing associations, farmers' markets and direct marketing associations are also possible sources. Irrigation districts provide acreages in some counties. The issuing of pesticide permits and quality inspection certificates by the Commissioner's office provides a good source of data, but may not be complete.

   NASS surveys processing plants and major shippers and will share this data with counties where applicable and through cooperative arrangement. Contact the National Agricultural Statistics Service for details of what crops are covered, when the data are available and whether it includes a county breakdown in your area. Another source used in some counties is vegetable seed sales.

   Each source may be used as a check on others and each needs to be evaluated for its completeness and accuracy. Some yield data reports may not be calculated from complete acreage and they tend to show bias that accentuates both high and low production.

   As a general rule crops should be recorded in the year that they are harvested. The calendar year basis of county crop reports creates some problems for winter vegetable crops that grow during the latter few months of the year and are harvested in the first weeks of the calendar year. If the county report covers harvests outside the calendar year in order to show an entire crop or deal, a footnote of explanation should be included.

2. Price Data:

   a. Fresh Market: Packers, shippers, and the Market News Service are useful sources of price data for fresh market vegetables. The f.o.b. packed price is used to value the crop as it has historically been the most predominant and easily obtained price. This includes harvesting and packing costs. With many variations of pricing and contracting being used, the f.o.b. price is a good common denominator and serves as a way of maintaining the comparability of the historical series.

   b. Processing Vegetables: Average prices for processing vegetables should reflect returns to growers. In some cases, such as processing tomatoes, the National Agricultural Statistics Service shows both a farm gate and a processing plant door price on its reports. Being a farm gate price, it does not include hauling to the plant; a service that has become almost a separate industry in some areas, and is often accomplished by hauling contractors, and paid for by processors.

      Where one crop is sold into several uses, it is recommended that fresh and processing be separated, if possible, and a separate price be shown for each use. If the limited number of growers makes separation of uses impossible due to disclosure rules, the average price should be weighted to reflect the relative amounts going into various uses. (See Appendix B for example of weighting.) A third category for culls being used for feed or fuel may be created if a distinctly different price structure prevails and the quantity is large enough to be a significant income to growers.

3. Recommended Units and Point of Pricing:

Crop	Units	Point of Pricing
Fresh Market	Cwt. or tons or package with weight specified.	F.O.B. packed, may be field packed. Variation in prices between early and later production should be considered and a weighted average used. For unsold products in cold storage at end of calendar year, the expected price must be estimated.
Processing	Tons	First delivery point prices are recommended and may vary between crops from farm gate to the processing plant door. Where only contracts for un-harvested produce are used, harvesting and/or hauling costs may be added to make all prices comparable.
Combined Fresh and Processing	Cwt. or Tons	Weight price for relative amounts sold into each use.

4. Suggested Format for Tables in Crop Report:

VEGETABLE CROPS: Acreage, Production and Value

Crop	Year *	Harvested Acreage	Production		Unit	Value	
			Per Acre	Total		Per Unit	Total

* If only one year is shown, column may be omitted.

Vegetables Commodity List - Suggested sub-sections in parentheses.
Anise
Artichokes (fresh, processing)
Asparagus (fresh, processing)
Beans (fresh, processing) (lima, snap) (seasonal group)
Beets (fresh, processing)
Broccoli (fresh, processing) (seasonal group)
Brussels sprouts (fresh, processing)
Cabbage (fresh, processing) (seasonal group)
Carrots (fresh, processing, culls) (seasonal group)
Cauliflower (fresh, processing) (seasonal group)
Celery (fresh, processing) (seasonal group)
Corn (fresh, processing) (seasonal group) (corn, sweet)
Cucumbers (fresh, processing) (seasonal group)
Eggplant
Endive
Escarole
Garlic (fresh, processing)
Greens (chard, collard, kale, mustard, turnip, watercress, etc.)
Horseradish
Kale
Leeks
Lettuce (head, leaf, butter, romaine, etc.) (seasonal group) (naked pack, wrapped, bulk)
Melons (cantaloupes, honeydew, Persian, watermelon, other)
Mushrooms
Onions (dry, green processing) (seasonal group)
Asian vegetables (either separate or a group) (includes: bitter melon, Chinese cabbage, daikon, edible pod peas, and other miscellaneous oriental vegetables)
Peas (fresh, processing)
Peppers (bell, chili) (fresh, processing)
Potatoes (fresh, processing) (seasonal group)
Radishes

Spinach (fresh, processing)
Squash (fresh, processing)
Tomatoes (fresh, processing) (cherry, round, pear) (seasonal group)
Turnips
Other vegetables (either separate or as a group) (includes alfalfa and bean sprouts, anise, celeriac, celery roots, chayotes, chicory, chives, dandelion root, dill, hot peppers, kohlrabi, leeks, okra, parsley, parsley roots, parsnips, pimentos, pumpkins, radicchio, rapini, rhubarb, rutabagas, salsify, seasoning plants, greenhouse vegetables, baby vegetables and other miscellaneous vegetables)

D. **NURSERY PRODUCTS:** The wide variety of products (included in this section) makes it necessary to rely on values more than area or units.

1. Acreage and Production Area: Greenhouse-grown flowers are estimated in square feet of planting space while outdoor grown flowers and nursery stock are usually most easily measured in acres. Problems of multiple cropping, especially among bedding plants, potted flowers, and foliage plants can best be resolved through stating the total area used for greenhouse crops and reflecting the multiple cropping aspect in the value produced.

   Separation into individual crops (roses, mums, carnations, etc.) is possible in those counties with enough growers of each to allow reporting without disclosure.

   In several counties this has taken the form of a supplemental or a revised questionnaire.

   Other counties collect the information on nursery crops at the time of the annual nursery inspection. Some depend on estimates of square footage and multiply this times an average annual production; a somewhat less-accurate system and not preferred if an estimate of actual production or sales can be obtained.

2. Price Data: Calculating an average received price for the year involves seasonal fluctuation and both peak production periods and peak holiday sales. All these factors contribute to pricing difficulties.

   Price data direct from a number of growers is ideal for these commodities Using the guideline for first-point of sale is preferred, although it does result in some difference of opinion between the growers as to whether delivery, packing, transportation and commissions are included. Since income to growers is the ultimate aim in this data collection, it is best to determine the price received by the grower without including commission charges and hauling to the first assembly point.

3. Grouped and Sub-group Totals: With such a variety of products included there are often questions on classification. For the purposes of the county commodity totals two main groupings are needed:

Flowers & Foliage include:	Cut Flowers	Cut Foliage
	Potted Flowers	Foliage Plants & Indoor Decoratives
Nursery Products include:	Bedding Plants	Bulbs, etc.
	Flower Seeds	Propagative Materials
	Rose Plants	Woody Ornamentals
	Herbaceous Perennials	Christmas Trees and Greens
	Turf	Nursery Products, Other Than Ornamentals

   The previous categories follow the classification used by the Nursery Service in their annual request to County Commissioners for data used by the industry to direct their activities and emphasis. Examples follow:

a. Cut Flowers and Cut Greens: The following cut materials are examples of the type of product, which should be included in this classification.

Cut Flowers		
Agapanthus	Forget-Me-Not	Peony
Allium	Forsythia	Phlox
Amaryllis	Francoa	Poinsettia
Anemone	Freesia	Protea
Anthurium	Gaillardia	Ranunculus
Artichoke	Gardenia	Rhododendron
Aster	Gerbera	Rose
Banksia	Ginger	Salpiglossis
Bells of Ireland	Gladiolus	Scabiosa
Bouvardia	Godetia	Scilla
Calendula	Gypsophila	Snapdragon
Calla Lilies	Heather	Snow-on-the-Mountain
Camellia	Hyacinth	Starflower
Candytuft	Indian Paintbrush	Statice (All Types)
Cardoon (Cynara)	(Castilleja)	Stephanotis
Carnation	Iris	Stock
Centauria	Ixia	Strelitzia
Chrysanthemums	Larkspur	Sunflower
(All types)	Lavender	Sweet Pea
Clivia	Leptospermum	Sweet William
Cockscomb	Liatris	Tritoma
(Celosia)	Lilac	Tuberose
Cornflower	Lily	Tulip
Dahlias	Lily-of-the-Valley	Violet
Daisies	Marigold	Water Lilies
(All types)	Mignonette	Waxflower
Delphinium	Narcissus	Yarrow
Eremurus	Orchids	Zinnia
Euphorbia	Ornithogalum	

Cut Greens		
Asparagus (All types)	Eucalyptus	Ivy (All types)
Bird Leaves	Fern - Brake	Laurel
Basil	Fancy Brake	Myrtle
Boxwood	Maidenhair	Palm Leaves
Camellia	Leatherleaf	Pittosporum
Chamaedorea	Galax	Salal (Lemon)
Cocculus	Grevillea	Scotch Broom
Coontie (Zamia)	Huckleberry	Silver Tree
Desert Spoon	Iron Leaf	Smilax

Miscellaneous Items		
Acacia	Flowering Tara	Pussy willow
Chinese Lanterns (Dried)	Holly	Queen Anne's Lace
English Holly	Indian Corn (Dried)	Safflower (Dried)
Flowering Peach	Lunaria (Dried)	Straw flowers
Flowering Quince	Mistletoe	

b. Potted Plants: This category includes both flowering and "foliage" potted plants destined for use indoors. Examples:

Aphelandra	Daffodils	Kalanchoe
Azalea	Easter Cactus	Lily-of-the-Valley
Begonia	Easter Lilies	Mother's Day Cactus
Bromeliads	Freesias	Orchids (All types)
Caladium	Fuchsia	Pelargonium
Calceolaria	Gerbera	Poinsettia
Christmas Cactus	Gloxinia	Saintpaulia
Cineraria	Hyacinth	Spathyphyllum
Coleus	Hydrangea	Tulips
Cyclamen	Ivy	
- Plus many species of foliage plants -		

c. Bulbs, Corms, Rhizomes, Roots and Tubers: Examples:

Tulips	Daffodils & Other Narcissus	Iris
Lilies	Gladioli	
Ranunculus	Dahlias	

d. Flower Seeds: All types of flower seeds, but do not include vegetable seeds or seeds of other crops.

e. Propagative Materials: Hardwood or softwood cuttings of ornamental nursery stock. Examples:

Carnation Cuttings	Geranium Cuttings
Chrysanthemum Cuttings	Miscellaneous Budwood

f. Bedding Plants: This category comprises small annual plants sold in flats or small containers. Plants used in home gardens, parks, cemeteries, recreation areas and landscapes of all types.

g. Rose Plants: Rose plants produced for outdoor gardens and/or greenhouse cut flower or potted plant production should be placed in this category.

h. Woody Ornamentals: Included in this category are trees, shrubs, vines, ground covers, etc., produced for landscape use. Examples are Shade Trees, Flowering varieties of Fruit and Nut Trees, Broadleaf Evergreens, Coniferous Evergreens, Specimen Olive Trees, Azaleas, and Camellias for landscape use, etc.

i. Christmas Trees: Choose-and-cut or cut Christmas trees for wholesale sales should be included here.

j. Herbaceous Perennials: Perennial plants produced as clumps or in containers and destined for outdoor garden use are included here.

Examples of Common Herbaceous Perennials:	
Achillea (Yarrow)	Gypsophila
Aethionema (Stonecress)	Helianthus (Perennial Sunflower)
Ajuga Reptans (Carpet Bugle)	Helichrysum
Alyssum	Heliopsis
Anchusa (Forget-Me-Not)	Helleborus
Anemone	Hepatica (Liverleaf)
Anthemis (Golden Marguerite)	Heuchera (Coral Bells)
Aquilegia (Columbine)	Hosta (Plantain Lily)
Arabis (Rockcress)	Iberis (Evergreen Candytuft)
Arctotis (African Daisy	Lavendula (Lavender)
Armeria (Thrift)	Kniphofia (Poker Plant)
Artemisia (Wormwood)	Limonium (Sea Lavender)
Aster (Hardy Aster)	Lotus
Astilbe (False Spirea)	Lychnis (Campion)
Aubrieta	Monarda (Bee Balm)
Bellis Perrennis (English Daisy)	Nepeta (Catnip)
Bergenia	Nicotiana (Tobacco)
Billbergia	Nierembergia (Dwarf Cup Flower)
Boltonia	Oenothera (Evening Primrose)
Calceolaria	Paeonia (Peonies)
Campanula	Papaver (Poppy)
Centaurea	Pelargonium (Geranium)
Cerastum (Snow-In-Summer)	Penstemon (Beard Tongue)
Cheiranthus (Wallflower)	Phlox
Chrysanthemum (Hardy Types)	Physostegia (False Dragon Head)
Coreopsis	Platycodon (Balloon Flower)
Corydalis	Potentilla (Cinquefoil)
Delphinium	Salvia (Sage)
Dianthus (Pinks & Sweet William)	Saxifraga (Saxifrage)
Dicentra	Scabiosa (Perennial Pincushion)
Digitalis (Floxglove)	Sedum Spectabile (Showy Sedum)
Dimorphotheca (Cape Marigold)	Stokesia (Stokes Aster)
Echinops Ritrop (Small Globethistle)	Thalictrum (Meadow Rue)
Erigeron	Thermopsis
Eupatorium (Mistflower)	Tradescantia Virginiana (Common Spiderwort)
Felicia	Trollius
Gaillardia	Verbascum (Mullein)
Gazania	Verbena
Gerbera (Transvaal Daisy)	Veronica (Speedwell)
Geum (Chile Avens)	Viola Odorata (Sweet Violet)

k. Turf Category: This category included Grass Seed, Dichondra Seed, Grass Sod and Dichondra Sod.

l. Nursery Other Than Ornamentals Category: Examples of products included here are Vegetable Plants, Citrus, Grapevines, Deciduous Fruit and Nut Trees destined for commercial crop production, Tomato Plants, Strawberry Plants, Subtropical Fruit Trees, Asparagus Plants, Seedling Trees, etc.

4. Suggested Format for Tables in Crop Report:

Item	Year *	Production Area		Quantity Sold	Unit	Value	
		House Sq. Ft.	Field Acres			Per Unit	Total

* May be omitted if only one year is included.

E. **LIVESTOCK AND POULTRY:**

1. Production:

a. Cattle and Calves: Since Agricultural Commissioners have limited contact with cattle ranches in their normal activities, the collection of production data on cattle requires special survey efforts or reliance on production calculations based on inventory estimates. In a few cases, the Brand Inspectors or the local auction weigh-masters provide the Commissioner with some information on the origin of animals sold, but this is not a complete source. Other secondary sources used in some counties are the cattlemen's associations, breed associations, feed and equipment dealers, veterinarians, and the Farm Advisor. For more information on mail surveys, please see Section B in Chapter III on Estimating. The balance sheet system is outlined in Appendix D.

When several data sources are available on cattle and calves, it is suggested that more than one be used to check on the others. The balance sheet approach is especially useful in this way and will serve to verify other sources or possibly show differences that need further investigation.

(1) Feedlot Cattle: Since the number of feedlots is small and output is variable, there is a need for direct information. It is only the gain added while in the county that is used in the crop report. Calculating production from the market data requires added information such as period on feed, rate of gain, or pounds sold minus weight when entering the feedlot to be complete.

Counting this gain leads to a question of how to separate cattle on feed that were raised in the county from those brought into the county for the feeding period only. Unless the feedlot operators are willing to supply such a separation, this is difficult to estimate. To avoid this problem, all locally produced cattle entering feedlots can be valued as if they were sold at the time they go on-feed, even if being fed by the calf producer. As a separate calculation, the gain on all feedlot cattle is then estimated and valued, regardless of origin.

An annual summary of fed cattle marketings by county is provided to some County Commissioners by NASS. This is not published data and caution is advised in using it. It should be used in calculating totals, but not published separately.

(2) Classification: Most counties have a variety of cattle sales: cows, calves, feeders, fed steers and heifers, bulls, etc. Estimating each classification separately allows different prices to be used and is considerably more precise that using an average price for all classes. Where breeding stock is an important product of the county, a separate classification may be made rather than averaging the higher priced sales for breeding stock with those sold for slaughter.

(3) Transient Grazing: For animals that pasture temporarily in a county, the pounds of gain put on while there should be credited to that county. This is one of the most difficult estimates for County Agricultural Commissioners' staffs to make since they have little or no contact with transient cattle operations.

If the cattle owners can be located, direct contact may yield the desired information. Otherwise, it must be estimated from secondary sources such as the Farm Advisor, Cattlemen's Association, Brand Inspector or prominent ranchers. The number coming through the county on a temporary basis is likely to vary from one year to the next depending on rainfall and range conditions, so a new estimate is needed each year.

(4) Balance Sheet: Estimates of State-level cattle numbers as of January 1 are made by the NASS.

(5) Veal: There is no substitute for direct contact information in these special situations. Following the feedlot pattern, the gain during the feeding period should be credited to the county. If the calves are products of dairies within the county, the full value could be counted if no income from sales of newborn bull calves has been previously credited to the dairy industry.

(6) Replacement Heifers: Raising dairy herd replacements has become a separate industry in some counties and can be credited to the annual production summary. An estimate of increases in value during the calendar year is needed and can be obtained through recording the sales and deducting the inventory value at the beginning of the year.

If complete information on such operations is difficult to obtain, some estimate of average value gain should be made with the assistance of the Farm Advisor's staff or other knowledgeable people. The average value gain should then be applied to growing heifers whether they remain at the diary or enter the specialized replacement production operations.

b. Sheep and Lambs: Contacting individual sheepmen is the most direct method of obtaining sheep numbers. Where predator trappers are available, they make excellent contacts and provide estimates. Contacts with ranchers through weed and vertebrate pest control are more limited, but can still be used in some counties.

Wool pool buyers and sheepmen's associations (California Wool Growers and various breed associations) may be helpful in providing members.

Itinerant sheep may present a similar problem as encountered in cattle. Sources of estimates include the government land grazing permits issued by the Forest Service and the Bureau of Land Management and range management specialists employed by these agencies.

Other sources include auction yards, breeding stock sales, county fair exhibitor lists, and organizations that promote hand spinning and weaving.

c. Hogs and Pigs: So few producers exist in California that each county must rely on information direct from local people and a few contacts will yield the necessary data. Some counties have specialty producers of "roasting pigs" sold to Asian-American communities at premium prices while other counties have garbage feeding operations; estimating these unusual operations requires some direct knowledge of growth rates, time of sale and prices received.

d. Poultry:

(1) Chickens: Since nearly all production of broilers, roasters, eggs, replacement pullets and cull hens is in the hands of a few large commercial operations, there is no substitute for contact with individual producers. Farm Advisors specializing in poultry may be helpful and poultry feed and equipment dealers, marketing co-ops, or accounting firms specializing in services used by poultry growers might also provide information on total numbers hatched, pounds marketed or eggs sold. Statewide data are collected from the headquarters offices of major producers by, NASS but the data are not separated by county.

(2) Hatcheries: The number of chicks and poults hatched and average prices are obtained from the hatcheries by the NASS. These data are summarized by county on the basis of hatchery office location and sent to the counties early each year. Counties are free to use this data in their reports, but should realize that multi-county reporting may be taking place where a hatchery has its office in one county, but some of the actual hatching is done in another.

(3) Turkeys: Turkey production is also in the hands of a relatively-few operations and direct inquiry is necessary. Feed dealers and Farm Advisors may provide some check data. Disclosure problems develop quickly under these circumstances of a few operators in each county. Other than putting the entire turkey value produced into a miscellaneous category, the county can request permission of the operators to publish the data in a form that reveals as little of the firm's business as possible.

(4) Rabbits, Ducks, Geese, Game birds, Squabs, etc.: Data for these miscellaneous meat and poultry products can be collected from the producers or perhaps a specialty buyer/dealer. Lists of licensees by county for producing game birds and animals are available from the California State Department of Conservation, Sacramento Office.

2. Prices: Average prices for livestock should be calculated to reflect the entire calendar year and the variation between grades, methods of sale and location. The relative numbers and poundages of each category should be priced separately and a weighted average used for publication. (See Appendix B for an example of weighting.)

   Prices are available from Market News, auction markets, contacts with producers and slaughterhouses. State average prices published by NASS can be used as a guide. Since local differences are not reflected in the State averages, some modification is usually appropriate to make the prices locally realistic.

3. Recommended Units and Point of Pricing:

Animals -- Possible List Includes:	Units	Point of Pricing
Bulls Steers and Heifers Cows Veal Calves Feeders Breeding Stock	Cwt. or Head	Point where the most sales are made direct from producers. Average for year should be weighted to reflect seasonal differences.
Rams Ewes Fat Lambs Feeder Lambs Breeding Stock	Cwt. or Head	Auction sales and direct from ranches.
Chickens Turkeys Rabbits and Other Poultry	Lb.	Price at most common point of sale. Live weight if not otherwise specified.
Baby Chicks and Poults	Each	Hatchery sales. Pullet and straight run prices vary widely and should be separated or a weighted average used if both are included in your county.

4. Suggested Format for Tables in Crop Report:

Item	Year *	Number of Head	Total Live Weight	Unit	Value	
					Per Unit	Total

* May be omitted if only one year is included.

Commodity List: (Possible sub-sections in parentheses.)

Cattle and Calves
- Dairy (breeder bulls, breeder cows, replacement heifers, milk cows, cull cows, veal calves)
- Beef (breeder bulls, breeder cows, slaughter bulls, cull cows, feeders, fed steers and heifers, weaner calves)

Sheep and Lambs (breeding stock, cull ewes, feeders, feedlot fat lambs, range and pasture fat lambs)

Goats (Angora, milk breeds, meat breeds, cabritos)

Hogs and Pigs (slaughter sows, slaughter hogs, feeder pigs, roasting pigs, weaner pigs, breeding stock)

Poultry
- Broilers
- Other Chickens (spent hens, roasters, laying pullets)
- Turkeys
- Chicks
- Turkey Poults

Rabbits (Angora, meat breeds)

Other Livestock (llamas, ostriches, chinchillas, ducks, geese, squabs, game birds for meat, etc.)

F. LIVESTOCK AND POULTRY PRODUCTS:

1. Production:

   a. Eggs: Data from major producers are essential. The few secondary sources include Farm Advisors plus equipment and feed dealers. Small producers who sell through farmers' markets and direct marketing should be included if possible, although their total may not be large.

   b. Hatching Eggs: Hatcheries with several locations are often reluctant to give county estimates, but their data is the only available information. State totals are collected by the NASS, but no data by county is published. Some county data can be partially estimated from the State totals and each county containing hatcheries should keep in touch with the State office in order to receive what assistance may be possible based on the nature of the data and local knowledge of size of operations.

   c. Wool: County wool estimates refer to the current year's shearing regardless of when sold. Wool growers' associations and Farm Advisors may be helpful. Direct marketing of colored fleeces, mohair and angora is becoming a significant market in some counties.

   d. Milk: Estimates are furnished by the NASS and are made possible by CDFA's Dairy Marketing Branch. Previous years' revised figures are sent with the current year's preliminary estimates.

   e. Manure: Although formerly regarded as a by-product of little or no value, the sale of manure by feedlots, dairies and poultry operations has become a major source of income in some counties. Data must be gathered direct from the producers or buyers since no established markets exist. Manure used by the producer may be included in the same manner that home grown hay and grain fed by the producers is incorporated into the total value produced.

2. Price Data: Egg price data are usually available from the producers. State averages from NASS may be used with considerable reliability at the county level and Market News reports are useful for checking.

3. Recommended Units and Point of Pricing:

Crop	Units	Point of Pricing
Milk	Cwt.	Production and value estimates made are sent to the counties early in the year.
Wool	Lb.	Grease wool price should reflect all grades including tags.
Eggs, Market and Hatching	Dozen	Producer deliveries at wholesale market or as picked up at ranch. Retail sales at ranch can be averaged in, if significant. Market News publishes prices.
Turkey Hatching Eggs	Each	Since there are usually few producers in any one county, this item often appears as value only in miscellaneous or "other livestock products."

4. Suggested Format for Tables in Crop Report:

LIVESTOCK AND POULTRY PRODUCTS

Item	Year *	Production	Unit	Value	
				Per Unit	Total
			Cwt.	- - Dollars - -	

* May be omitted if only one year is shown.

Commodity List - Optional sub-sections in parentheses.

Milk (market, manufacturing)
Wool
Eggs, chicken (market, hatching)
Eggs, turkey (hatching)
Other livestock products (goats milk, quail eggs, mohair, angora wool, manure, etc.)

G. APIARY PRODUCTION

1. Production Data Sources: Contacting beekeepers during inspections and colony registration will provide valuable information for estimating honey production. Apiary associations and apiary co-ops may also be good sources.

   Many counties estimate production on resident colonies and add pollination fees based on crop acreage (almonds, melons, alfalfa seed, etc.) covered, regardless of bee ownership. It is possible to include the temporary production (honey, wax, etc.) of itinerant colonies that are brought into the county for pollination or strength buildup. This follows the same principle that applies to cattle grazing for short periods in the county: production, while resident in the county, can be estimated and included in the crop report. Admittedly, this is difficult to estimate and getting information direct from owners is complicated by the fact that many beekeepers coming in for pollination or wintering are residents of distant counties, other states and Canada.

2. Price Data: Prices of honey, wax, bees, queens, and nuclei can be obtained only through people involved in the industry.

3. Recommended Units and Point of Pricing

Crop	Units	Point of Pricing
Honey	Lb.	Prices are quoted on extracted basis. Calculate average of grades produced in the county.
Beeswax	Lb.	As sold by producers.
Package Bees	Lb.	
Nuclei	Lb.	
Queen Bees	Each	Selling price can include all producer costs such as packing and mailing.
Pollination	Per Colony	Rental fee paid to beekeepers. May be based on average fee and acreage of fruit and seed crops requiring bees for pollination.

4. Suggested Format for Tables in Crop Report

APIARY PRODUCTS: Production and Value

Item	Year *	Production	Unit	Value	
				Per Unit	Total

* May be omitted if only one year is shown.

Commodity List:

Honey
Beeswax
Pollination
Other (separate or in total - package bees, queens, nuclei, etc.)

H. **OPTIONAL DATA FOR PUBLICATION**: The following items are not necessary to publish a good report, but they may be included to make a more complete picture of agricultural income in your county. Such information helps answer frequent questions raised by users of the report and publishing these data may save your office the bother of answering phone calls requesting further information.

1. Government Payments: They are not counted as earned agricultural income since they represent a transfer of Government tax revenue and are not the result of direct market factors. If required to publish this item by the Board of Supervisors, the data are available from the FSA office. Publication should be in a separate table from production income.

2. Fish Farming (Aquaculture): Catfish and trout are produced in California. These freshwater fish are considered users of agricultural land and water and are included in agricultural production. Saltwater fish and shellfish are included only if produced within the county boundaries. Decoratives (goldfish, koi and tropical) are excluded as pets. Fish raised for feeding other fish or animals may be included, but not fish hatcheries (State and private) used to replenish wild supplies of sport fish.

   The data must be collected from the producers themselves since the industry is not large and the producers are seldom organized on a county basis. As with poultry, there are problems with producers operating in several counties and data collected at the State level is not separated by county.

   Caution is advised in collecting yield data since production varies with water temperature and other factors. Geothermal-heated water is used by some growers to greatly increase the rate of growth and using average production rates may be misleading.

Some growers' associations have been organized on a State or regional basis and should be contacted for data where possible. Marketing co-ops and the local farm bureau may be additional sources.

3. Worm Farming (Vermiculture): Worm production for fish bait, soil improvement, and export has been going through periods of expansion and contraction in California. Production can be included in miscellaneous livestock in a separate special livestock category.

   Prices are quoted by containers, by hundreds or thousands, and by weight. Data must be collected directly from producers in most cases. In a few areas, the worm growers are organized and can be contacted as a group.

4. Breeding Fees and Semen Sales: Because the value of these items is related to pedigree and reputation rather than agricultural production, it is recommended that they not be included.

   Difficulties in obtaining such information would be nearly insurmountable since prices and sales are carefully restricted private information. Also, tax laws and confidentiality rules complicate this realm, which is perhaps more closely aligned with the marketing of name-brand processed products than with basic agricultural production.

5. Embryos: Marketing of fertilized embryos has flourished recently, especially in the dairy industry. It can be included with sales of breeding stock if local data are available.

6. Sustainable Agriculture: Following the passage of AB-2665 in 1990, the Food and Agricultural Code requires a report on sustainable agriculture activities. Section 2272 of the code now reads:

   "The commissioners shall make an annual report to the director on the condition of agriculture in his or her county and on what is being done to eradicate, control, or manage pests, and actions relating to the exclusion of pests or quarantine against pests. The commissioner shall include in the annual report information relating to organic farming methods, biotechnology, integrated pest management, and biological control activities in the county."

   A minimum standard has been established by CACASA. At the Commissioner's meeting, December 3, 1990, it was debated whether the above report should be added to the crop report or to the annual report of department activities. The decision was left to the individual county's discretion.

I. **TIMBER DATA**: Since the California Agricultural Commissioner's Association voted at their 1981 Annual Meeting to include timber as a crop it is no longer an optional category. Data on the timber harvest is now expected to be added to those county crop reports where forest products are a harvested resource.

   Forest products remain as a separate item at the State and National level. Hence, for State-summary purposes, we ask that it be presented in a section of the report that can be easily totaled and also kept separate from the remaining agricultural products. We recommend a subtotal without timber be included before the grand total.

   Sources of data include National and State forest headquarters, lumber companies, the State Board of Equalization Timber Tax Division and the Western Wood Products Association. The latter publish county totals, but later than needed for county crop reports. If no current local data are available, the previous year's data may be used with an appropriate note. Since there is a three-year period allowed for cutting timber after the tax is paid, it is possible the time lag would be appropriate.

   NASS will supply timber data to the commissioners in the spring with price and county data.

Annual Yearbook contains production by county - Summer publication $20.00

1. Suggested Format for Tables in Crop Report

FOREST PRODUCTS: Production and Value

Item	Year	Production	Unit	Value	
				Per Unit	Total

Commodity List:

Timber
Firewood
Other (chips, poles, cabin logs, co-generation plant fuel, etc.)

V. **PUBLISHING A CROP REPORT**

County reports vary widely in their style of publication and many have developed their own format and distinctive appearance. The following are suggestions that should aid in making the report as complete and informative as possible without detracting from its individuality. Following these guidelines will make it easier for data users to compile multi-county material or make meaningful comparisons between counties.

A. Preparation for Reproduction:

1. Format: Whether the report will be photocopied, lithographed or set-in-type, the format should be completely consistent and meticulously proofread. The tables recommended in the previous sections include all the needed information in a relatively easily readable form. Other styles may be used as long as they are uniform throughout the report and provide all the information. We strongly urge that complete information be published, including acreage, yield, unit price, and value of all crops produced in your county.

   If the units of production shown in the report are not tons, it is imperative to publish the size of the unit in pounds. Appendix C lists many commonly used container sizes as published by the Market News Service, and serves as a handy reference for converting to tons. Since these reports are used as reference material for agricultural loans and land appraisals, it is especially important to include the yield per acre and price per unit. Yield and price data vary widely between counties and a major reason for publishing county reports is to show data users what variations exist.

2. Typing: Consistency and clarity should guide the choice of page style, font or format. Table patterns shown in this manual are recommended, but may be modified to suit the county report as long as clarity is not sacrificed. If there is a choice of font for the report it is recommended the largest and clearest (non-script) font be selected.

3. Rounding: Since all county crop reports are regarded as estimates and not absolute enumerations, the data should be rounded. This avoids the impression of exactness that un-rounded numbers convey. Rounding should take place after all the numbers have been calculated but before the final total is added up on any table. Commodity group totals and the grand total should be calculated using rounded data. If this is not done, it may be necessary to add a footnote saying "Totals do not add due to rounding."

   The following rules should guide your rounding process:

   GENERAL RULE:

   Where figure is 100,000 or more -- round to thousands.
   Example: 343,600 to 344,000

   Where figure is less than 100,000 -- round to three significant digits.
   Example: 92,370 to 92,400
   9,237 to 9,240

   Three-digit figures need not be rounded:
   923 -- needs no rounding

   When rounding off one digit, the "one-half" adjust method is used -- add 5 to the first digit being rounded off and then drop the resulting digit.

   Example:

12.45	12.55	12.54	12.56
+ 5	+ 5	+ 5	+ 5
12.50 = 12.5	12.60 = 12.6	12.59 - 12.5	12.61 = 12.6

Yields:	Tons	Round to two decimal places
	Pounds	Round to whole pounds
	Hundredweight (Cwt.)	Round to nearest cwt.
	Bushels	Round to nearest bushel

Prices:	Interval	Rounding Level--to Nearest
	$1,000 +	10 Dollars
	$100 - $999	1 Dollar
	$10 - $ 99	Dime
	$ .01 - $ 9.99	Cent

Percentages: Round to nearest whole percent.

4. Disclosure Rules: During the data summary process it is advisable to review each item and the sources from which it was calculated to determine potential disclosure of personal business statistics. Since all data are gathered with a pledge of confidentiality, it is prudent to double check for areas where publication of product totals would inadvertently disclose the size of someone's business.

   The general rule: Where there are less than three producers of one product or where one producer is responsible for 60 percent or more of the product entering the marketplace, the product total must be combined with other products to avoid disclosure of the business affairs of the firms involved. An alternative to combination is to secure permission of the growers in question to publish the data, but this may often be impossible to obtain, or requesting permission might reduce the cooperativeness of the source. There are several counties where the above rule forces major items to be combined with minor items. For example, although Fresno is the leading turkey producing county and Butte County is a leader in kiwi production, they have not always been able to publish separate data on these items due to the limited number of turkey growers and kiwi packers.

   Contra Costa County encountered the problem in the form of one large nursery that clearly had more than 60 percent of the total. Their solution was to get the large producer to separate enough items that could be combined with data from a variety of other growers so that each item was a combination in which the one producer did not exceed 60 percent.

B. MAKING THE CROP REPORT LOOK GOOD

1. Covers: A cover makes a first and lasting impression on readers and data users. Good looks need not be costly and many counties take pride in presenting a report with a cover that is both inviting and informative. Photographs can be taken by local staff members, borrowed from local newspapers, supplied by agribusiness offices or obtained from a county historical agency or a local chamber of commerce.

   Several counties publicize the work of the Commissioner's office by using photos of staff members at work.

2. Artwork: Some counties obtain artwork for its annual crop report from an art professor in a local college art department. The small drawings used to accentuate headings within the report are by the same artist and can be used repeatedly while the cover changes each year.

   Other counties use the same artwork on its cover on a rotating basis after obtaining four drawings by the same artist. To be used over a period of time, such artwork needs to be undated and should not show crops, areas, machines, and clothing that change from one year to the next.

   A map showing the major agricultural products of the county has been used to a good advantage by many counties.

   Whatever the form of artwork chosen, considerable care should be taken to insure that it will reproduce clearly. It should also be identified with the county in some way. Several counties try to feature their major products, one at a time, over a period of several years. Others use historical illustrations every year. In each case a continuity of style and design is maintained that the public

comes to identify with the Commissioner's office.

3. Additional Information: Beyond the usual annual statistics there are a variety of useful and informative additions that make a crop report into something more than a list of numbers.

   a. Time Series Data: Total product values over periods of time (20 years for example) make an interesting addition. This can also be done in a bar chart form or graph to make it more emphatic. A footnote, stating that the dollar values include inflation effects, may be an appropriate addition. Growth in production of the counties major crop or crops can also be shown for a period of time. Graphing both acreage and production over long periods provides insight into the technological development.

   b. Graphics: Graphic presentation of statistical data adds visual impact and tells the reader more in less time than tables of numbers. Seeing a graph, bar chart, or pie chart increases the retention of data thus adding to the impact and the usefulness of the crop report. Although there has been considerable effort put into consolidation and reduction of size of the county reports in recent years, there are still counties that have blank pages, such as inside the covers, and these pages could be well utilized by graphic presentations.

   c. Historical Sketches: Tulare County includes a short narrative on the history of one of their major crops each year. Kept short and illustrated with an old photo, it makes the report into something people enjoy reading and adds to its use by students and school teachers.

   d. Leading Crops: A list of "million-dollar crops" has become a standard addition to many county crop reports. Both livestock and crops should be included in this list.

4. Printing: Method of printing is usually dictated by the available equipment of the county government system. By consulting the printing office well in advance of the need for reproduction, some help is available in selecting artwork, papers, type styles and size of format. Special paper orders of unusual colors and sizes need to be placed as much as a year in advance in some cases. One county has its cover done and printed during the summer months when the printing shop has less pressure. It is ready for assembly when the data tables become available. Some counties have secured help in printing color covers from producer organizations. If a leading product is featured on the cover and in the narrative, it is logical to ask that product's major organization for support. Acknowledgment of support can be included.

C. **DISTRIBUTION**: Maintaining a good subscription list for the annual crop report is a big factor in getting the data into the hands of as many potential users as possible. Budget reductions have put some counties on a charge for each report system that reduces distribution somewhat and requires a special record-keeping system. Whatever the requirements of the county may be, some effort should be made to distribute the information that has been so carefully gathered and published.

Most counties publish data on their websites.

1. Media: Local newspapers, TV and radio stations all find news in the annual crop report. Some precautions and preparations for the release of the report will avoid potential problems. If there are both weekly and daily newspapers, the timing of the release should be done to give them both the opportunity to publish it on the same day. Release to radio and TV stations should be at the same time and the same delivery system. One Commissioner’s office organizes its staff to personally deliver and email the crop report to all the media at the same time of day.

   Preparing a short "executive summary" is one way of assisting the media to emphasize the positive aspects. These short writings can become the basis for news stories and are also useful for county officials in promoting the agriculture of their county. A few lines about the ups and downs of the county's major crops are sufficient for this purpose and a one page maximum length should be observed. Some counties include this page as part of every copy of the crop report, while others send it to the media along with a copy of the report.

2. Distribution to Contributors: One way to thank producers and others who supplied information for the report is to provide copies to each respondent. Many counties find this builds and maintains confidence in both the confidentiality and the validity of the data assembly process. Many producers can make use of some part of the data in planning their crop or enterprise build-ups or phase-outs.

3. Use in Public Relations: The public relations value of the annual crop report should be given consideration during its preparation and distribution. Many Agricultural Commissioners support the crop report as an office activity on the basis of its positive public service function. In a period when regulatory offices have been saddled with a questionable reputation by the general public, a positive force becomes especially important.

   To enhance this positive public relations value, the crop report needs to have an appealing appearance and some extra efforts applied to its distribution. Making sure all the possible media receive it is the first step, including websites, newspapers, online information outlets, and radio stations that cover the region from towns and cities outside the county.

   Aid in distribution can be enlisted from the local Chamber of Commerce Office. Local farm organizations that have offices or newsletters may help in distribution as well as the Farm Advisor's Office. Agricultural leaders' groups such as Ag. Leadership Associates, California Women in Agriculture, 4-H Leaders and FFA Teachers may be helpful in getting copies out to where they are useful, without the expense of mail distribution.

   Data from the report are often used in preparing county exhibits such as those at the California State Fair and organization exhibits by local groups such as the Farm Bureau, Grange, Cattlemen's Association, 4-H, and FFA at county fairs and State or regional meetings. Encouraging use is an important step in the crop report process. It adds to the value of the work you have completed. A little extra effort in distribution multiplies the effect of the many hours spent collecting the data and preparing this crop report.

APPENDIX A -- INTERVIEWING PRINCIPLES

Interviewing is about the best-known method of collecting information. If we contact a person for the purpose of getting facts concerning his operations, our first job is to get him to cooperate. We must create a desire in that person to tell us about his agricultural operations.

The Interviewer. It has been amply demonstrated that persons with agricultural experience who like people can do highly effective interviewing when they have a thorough understanding of a few important facts and guiding principles. The better these facts and principles are understood, the job of collecting accurate and useful information becomes easier.

The interviewers must school themselves to be impartial observers and recorders of facts. Primarily their job is to listen, understand and record the facts that the respondent gives them in reply to the questions asked. No matter how much the interviewers might disagree with the views of the respondent, it is not their business to try to change the respondent's way of thinking. Arguments are to be avoided at all costs. If the respondent has opinions that they want to "get off their chest," let them talk; appear sympathetic, if necessary say "I understand how you feel," and then when you get a chance, proceed with the interview.

An interview is a private affair. It is not a good policy to interview a person in the presence of a group. Each person's privacy must be respected. If you ask questions in the presence of others, the respondents will put little faith in your statements that the information they give will be kept confidential. They are less likely to give actual facts. Although the ideal interview situation is pretty much restricted to two people, the presence of the respondent's husband or wife is usually conducive to a good interview.

Making appointments. If a prospective respondent really cannot take the time for an interview, and there are times when this is true, don't try to "squeeze" one in. It takes time for an interview. It takes time to get acquainted -- to create the friendly atmosphere that is necessary for a satisfactory interview. If there is not time, or if it is not the appropriate time, spend a few minutes getting acquainted and then make a definite appointment later in the day, that evening, or on another day when you expect to be in that neighborhood. Be punctual about keeping any of the appointments you make. Being either early or late for an appointment might inconvenience the respondent and result in an unpleasant situation.

Making the introduction. The wording of the introduction should be developed to fit the personality of the interviewer and that of the respondent. It should be one that makes the latter feel at ease, and leads directly into the interview. There are four basic points that should be kept in mind about an introduction.

(1) Identify yourself by name as a representative of the County Commissioner of Agriculture's Office.
(2) Explain briefly the purpose of the survey.
(3) Explain briefly how the particular respondent was chosen.
(4) Assure them that the information they give will be held strictly confidential.

The most natural approach to an interviewing situation is the best. When you approach a person for an interview, you might start off something like this:

> "My name is _____. I represent the _____ County Commissioner of Agriculture who is conducting a countywide survey on agricultural production. The purpose of this survey is to collect up-to-date information for the Agricultural Commissioner's Annual Crop Report that is useful to farmers and others who are interested in the current trends of agricultural production. All your answers are held confidential, as they are used only to get county totals. Can you please spare a few minutes, to give me the information needed about your operation?"

A good introduction gives the person some idea of why this information is wanted and needed. It is important to give them as clear an explanation as possible before beginning the interview. If they are convinced in a general way that the survey is worthwhile, they will have enough confidence to follow right through the interview. If they are not convinced, they may spend much of the time quizzing the interviewer all through the conversation.

How to meet the person who doesn't want to cooperate. Actual refusals are rare. The experience of those doing personal interview surveys over a period of years reveals that only about one or two in a hundred refuses to cooperate. If refusals come often, usually the interviewer will find something is wrong with the way they introduce themselves or explain the purpose of the survey. They will need to improve their technique in this respect.

The person who says he or she doesn't have time for the interview is usually just trying to put off the interviewer. Ordinarily, a statement such as "this won't take very long, and I can visit with you while you are working," will start the ball rolling and soon they will be giving their entire attention. If they really don't have time, try to arrange for a return visit.

For the person who says he or she is opposed to surveys or to the "administration," or for some other reason is antagonistic, it is best to let them "get it out of their system"; listen sympathetically, but do not disagree with them. The minute the interviewer argues or contradicts something the respondent might say, the interview is lost. By the time the respondent makes a few strong statements and the interviewer listens to them sympathetically, they begin to classify the interviewer with themselves. Sometimes a well-timed compliment about their place or about the way they are doing some piece of work will help a lot to break down resistance.

You should know your instructions thoroughly so the right question is asked at the proper time and in the proper way to get the desired answers. Good relations with the respondent will lead to more correct and complete answers. And, just the opposite, too cordial relations will result in the respondent giving you answers designed to please you. This leads to what can be termed a patterned response and injects what is termed "interviewer bias."

Definitions must be clear and precise because words mean different things to people. One of the more common misunderstandings is the difference between "yield" and "production." The yield is usually applied to a definable unit such as "yield per acre." Yet some farmers will think of their total production as "yield." To avoid this, ask for production instead of the yield.

Know the local name of crops and record properly. For example, the terms "milo" and "sorghum grain" are used interchangeably.

Go to the person who knows the answers. In some cases, it may be a bookkeeper or manager and in other cases the owners. There will be cases where the operator actually does not know -- for example, a new tenant, who had just moved in, may be able to give you some idea of acreages from the crop residues, but would not know what the production was.

Recognize unwillingness or opposition in a respondent and judge the accuracy of their answers accordingly. The real test of interviewing skill comes when the answer is not clear, or the respondent misses the point. Obtaining a definite answer under such conditions is called "probing." A "probe" in this sense is anything the interviewer says in such instances to get a definite answer or to check on what appears to be a hasty, thoughtless answer. A good probe is one that gently prods the respondent to give a direct answer to the questions. A poor one hints at the validity of a particular answer, in other words, suggests the respondent's reply is incorrect. To do so is a major interviewing offense.

Checking the answers. If a respondent answers a question with a long and involved reply, it is a good idea to check it by summing up in a few words what has been said. This tells them what answer will be put down, and gives them a chance to correct themselves if necessary. Use the same technique if you believe a wrong answer has been given. Don't question the respondent as if you doubted his answer; merely repeat the answer given and say, "Is that correct?".

The questions you ask must be clear and precise so that misunderstanding is at a minimum. Questions should be asked the same way of each respondent. While you might think asking the same exact question is monotonous, remember this is the first time you have asked this respondent. Shifting the wording around can elicit entirely different answers and lead to confusion and omissions.

Do not omit questions, particularly those that can illuminate the answers of another. It may seem unreasonable that a grower would have, say, tomatoes in a certain part of the county, but rather than guess, ask. This may encourage them to tell you about other vegetables planted on acres not previously discussed.

Do not use emotional words, and above all, avoid discussions of politics, religion, social beliefs, economic status, environment or education.

Do not inject your own beliefs and prejudices into your interpretation of the answers or into the manner in which they are recorded. This is probably the greatest single source of error in interviewing.

Recognize the difficulties of acquiring certain types of information through unwillingness of respondents to give it or their inability to provide it or understand what is wanted.

Terminating the interview. When the interview is finished, the respondents should be thanked for their help. It is important to leave a good impression. If the interview took longer than the interviewer said it would, be sure to thank the respondents for the time. Mention again the purpose and use of the survey. This may be helpful in causing them to feel that the time given has been worthwhile.

Always: Be sincere! There is no substitute for sincerity in a person. It is absolutely essential that an interviewer be sincere in what he or she is doing. If interviewers are not convinced that this is a worthwhile project, then they will not do as good a job as they should. The respondent will feel it too. The manner in which you go about your work will indicate to the respondents how you feel about the project and will have a great deal to do with their attitude toward it.

Be courteous. Always be natural and friendly but businesslike. Never argue or be belligerent or take offense at something the respondent might say or do. You can be courteous simply by remembering the respondent's name and by using it during the interview.

Be alert. There is nothing simple or easy about the job of an interviewer. There are numerous phases where it is easy to go wrong. The interviewer must be ever on the alert for inconsistencies that turn up.

Be neutral. Be completely familiar with the questions you ask so as not to suggest answers or influence the reply. Never expect a given reply. Experience has fairly clearly indicated that we hear what we expect to hear. Avoid asking "leading questions" which suggest an answer. For example, say "Did you harvest any barley this year?", rather than "You didn't harvest any barley this year, did you?"

ERRORS OF RESPONSE. There are numerous "errors of response," either voluntary or involuntary, that should be pointed out. The interviewer should be aware of these things and try to correct them when detected.

Plain, honest and accidental mistakes in responding. Here clarity of the questions and making sure the respondent knows what you are asking is the best deterrent. You may have mentioned to them their farm or ranch and this may bring to mind the home place they own. This image stays with them throughout the interview and they actually forget the leased land they may have some distance away.

Failure of memory. This can result from an interview late in the season long after the crops are harvested and sold. Or they may not be quite sure to which year the crop should be credited (raised in one year, sold in the next). Again, clarity of the questions asked will keep this to a minimum.

Guessing. Many growers and ranchers do not keep adequate records and some crops that are stored and used on the ranch (hays) may be difficult for them to estimate. In an effort to show you they know their business, and what they are doing, they will sometimes give you a quick guess, which is something quite different from a studied estimate.

Unwillingness to give the right answers or outright refusal to respond. Usually this happens because of inadequate explanations for the need for the data or personality clashes with the interviewer.

Failure to understand the questions. Hearing difficulties or noisy machinery can lead to this. This can also be a result of rephrasing the questions to the extent they become confusing or meaningless to the respondent.

You will occasionally get wrong answers arising from "pride" (called prestige bias) in which the respondent will be bragging a little and overstate the true value. This can occur either as exaggerated production or reduced acreage harvested, or both, depending on what they think is the most important statistic.

Protection of self interest. There are those who will understate the facts, and they will not necessarily be consistent throughout the interview. This is especially true of specialty crops or where the grower is one of a few producers. Little can be done about these responses, except to make a note of your suspicions. The compiler will have reports from neighboring farms and ranches or other check data and may be able to make some adjustment.

Wrong answers can be caused by what may be termed as "interviewer's bias," where the answers are guided by suggestions from the interviewer thereby channeling the response into patterned grooves. For example, do not suggest an average hay yield or ask "Was your yield about average?" Let them answer the simple production question, then, if you detect too much of a guess in it, probe with further questions to clarify.

Unintentional errors in answering may come about because of failure to understand the question or relate the information they give to ultimate use. They will report differently to the census, tax collector, and to you. They will give different answers to government surveys and to private researchers. Interviewers will sometimes fail to get good interviews through blunders of their own. These include failure to understand the questions, definitions or instructions, thereby doing things incorrectly; failure to state their business and questions clearly; getting responses from someone in the family who does not know the answers; omitting questions and guessing at the answers and by careless and disorganized field procedure.

Again, interviewers must understand questions, definitions, instructions, etc., or they will be unable to evaluate the situation or record statements correctly.

There is no substitute for good judgment. The interviewer will be called upon many times to make decisions that are not covered in the instructions. Each of you is confronted with the same thing in your normal course of work. Familiarity with your job and its ramifications will help you make judgment decisions that are logical and reasonable. The same is true in your duty of gathering crop statistics. Be sure that you make a note of a problem and how you interpreted it so that the compiler will be able to follow your thinking. Keeping a file of these notes helps make next year's survey comparable regardless of who does it.

APPENDIX B - CALCULATIONS

1. Stratification: An example of stratification is the classifying of herds by size by putting them into several separate strata as in column 1 on the following Demonstration Table I. In this table, five beef strata and four dairy strata are created with feedlots being separated out as an unusual case for special attention. More or fewer strata can be created if the list on which this is based is reliable and current.

Demonstration Table I - Cattle Inventory Calculations From Incomplete Data: An Example of Stratification, Sampling and Expansion

Source: Sample data from state producer list and mail survey.

Column (1) "STRATA" Herd Size	(2) "UNIVERSE" No. of Farms	(3) "SAMPLE" No. of Farms	(4) "EXPANSION FACTOR" 2 ÷ 3	(5) "COLLECTED DATA" No of Cattle	(6) "EXPANDED DATA" 4x5
Beef 1-99	176	17	10.35	510	5,278
100-274	17	6	2.83	966	2,734
275-499	6	3	2.00	1,086	2,172
500-999	4	4	1.00	2,682	2,632
1,000 +	7	6	1.167	13,260	15,474
Feedlots	11	11	1.00	25,000	25,000
Dairy1-149	15	5	3.00	320	960
150-299	31	10	3.10	2,010	6,231
300-499	34	15	2.267	5,520	12,514
500 +	37	35	1.057	27,685	29,263
TOTAL	338	112		79,039	102,258

Explanation: Column 1 - "Strata": Size categories may be varied to suit any given situation.
Column 2 - "Universe": From a complete list of producers maintained by county or state office.
Column 3 - "Sample": Count of producers contacted and reporting current information.
Column 4 - "Expansion Factor": Obtained by dividing column 2 by column 3.
Column 5 - "Collected Data": Sum of numbers reported by respondents in "Sample."
Column 6 - "Expanded Data": From multiplying column 4 by column 5.

2.Expansion: The number of ranchers from whom information was obtained in a particular survey is shown in column 3 and constitutes the sample from which the total needs to be calculated. The number of ranches in the universe divided by the number in the sample produces an expansion factor. In the smallest herd size stratum the expansion becomes 10.35 since out of the 176 total ranches in that stratum, information was obtained from 17.

The expansion itself consists of multiplying the factor times the number tabulated from all of the 17 answers to the survey questionnaire. This is done by multiplying column 4 (the expansion factor) times column 5 (the total number of cattle recorded on the questionnaires from the small herd stratum). A similar pattern can be used for separate numbers of beef cows, milk cows, and other cattle if the data are available on the returned questionnaires or through personal contact. This is easily adopted for most computer spreadsheet programs.

3.Identicals: When reports are obtained from the same ranches each year (identical respondents), a comparison of the changes between last year and the current year is a good way of both estimating production and checking on whether the expansion factors are within reasonable bounds. Having a check helps to isolate a stratum where an unusual change has occurred such as dispersals, consolidations, etc.

First, the pairs of reports from identical sources must be sorted and, as shown in Demonstration Table II this will reduce the sample size in most strata. The tabulation of reported numbers is entered for the current year and last year (columns 3 and 4) and the percentage of change is calculated by dividing the current year's inventory by last year's (column 3 by column 4). Each stratum produces a separate rate of change.

Demonstration Table II - Cattle Inventory Calculations from Incomplete Data
An Example of Expansion from Identicals.

Column (1) "STRATA" Herd Size	(2) "IDENTICAL RESPONDENTS No. of Farms	(3) "THIS YEAR" No. of Head	(4) "LAST YEAR" No. of Head	(5) "PERCENT CHANGE" 3 ÷ 4
Beef 1-99	13	401	423	94.8
100-274	4	711	719	98.9
275-499	2	921	836	110.2
500-999	4	632	601	105.2
1,000 +	5	11,000	11,812	93.1
Feedlots	11	25,000	22,500	111.1
Dairy 1-149	4	300	289	103.8
150-299	9	1,911	1,844	103.7
300-499	12	3,800	3,711	102.4
500 +	30	24,311	23,285	104.4
TOTAL		68,987	66,020	104.5

Explanation: Column 1 - "Strata": Size categories may be varied to suit the situation.
Column 2 - "Identical Respondents": Reports from the same source for two years.
Column 3 - "This Year": Sum of number reported by respondents for the current year.
Column 4 - "Last Year": Total number reported by respondents for the previous year.
Column 5 - "Percent Change": From dividing Column 3 by Column 4.

4.Weighting: Weighting is used to combine such numbers as prices and yields in such a way that each is given a weight relative to its importance. Where a simple average would be misleading due to an imbalance among the proportions of the total represented by the data as reported, weighting corrects imbalances.

For example, in a county that records dry land and irrigated barley yields of .5 and 2.0 tons per acre, the simple average would be 2.5/2 or 1.25 tons per acre. But if the county actually has 10,000 acres of dryland barley and 25,000 acres of irrigated, the acreages can be used to weight the average by multiplying acreage by yield and calculating the average using the total acreage:

Dry land	.5 tons	X	10,000 acres	=	5,000 tons
Irrigated	2.0 tons	X	25,000 acres	=	50,000 tons
			35,000 acres		55,000 tons

Weighted Average Barley Yield = 55,000 ÷ 35,000 = 1.57 tons per acre

A similar system can be used to weight reports from several districts or valleys within the county:

Sugar Beets			
	Yield (Tons)	Acreage	Production
District I	24	700	16,800
District II	26.5	1,600	42,400
District III	25.2	400	10,080
		2,700	69,280

Weighted Average Yield = 69,280 ÷ 2,700 = 25.7 tons.

Another use for the weighted average is in calculating an average seasonal price when prices and quantities vary widely over the production period.

California Strawberries			
	Monthly Sales (1,000 Cwt.)	Dollars Per Cwt.	Total Value (000)
February	39	53.80	2,098
March	270	48.80	13,176
April	849	33.00	28,017
May	1,351	28.70	38,774
June	734	29.70	21,800
July	270	35.70	9,639
August	193	40.10	7,739
September	77	37.20	2,864
October	39	62.70	2,445
November	39	38.50	1,502
	3,861		128,054

Weighted Average Price = 128,054 ÷ 3,861 = $33.20

(Simple Average = $40.82)

Weighting can also be done with the percentages when the proportion in each category is known or can be estimated. An example is the combining of the fresh market and processed prices when it is known that 53 percent was sold fresh and 47 percent was processed:

Fresh Market	53%	X	$7.10	=	$3.76
Processed	47%	X	$ .57	=	$ .27
	Weighted Average Price			=	$4.03

5. Cotton and Cottonseed Calculations: A factor in cotton calculations is the variation in the bale weight. In converting harvests reported in bales into actual cotton lint, some allowance should be made for packing and variation in contents. The gross weight 500# per bale standard is used in some reports, while the 480# net-weight standard is used in others. The NASS report on cotton ginned publishes a running bale weight (RBA)

that is based on actual weights recorded during the period covered in the report.

For the purpose of reporting cotton lint in the county crop report, it should be made clear which of the standards is being used. The unit column should indicate whether 500# or 480# bales are being used or if running bales are used, a footnote should indicate the most recent running bale weight reported by NASS for the area. The California average bale weight in 1999 was 497 pounds, for Upland cotton.

Use of Running Bale Weight:

Reported bales X running bale weight = pounds of cotton lint.

Cottonseed production is most easily estimated from cotton lint data. The relationship of cottonseed to cotton lint is stable; approximately 37.5% of the harvested seed cotton weight is lint and the remainder is seed. To estimate seed cotton weight from lint totals, the net lint tonnage is divided by .375. From this total seed cotton weight subtract the lint and the remainder is cottonseed.

Example:

Total production cotton lint 526,000 bales X 480# bales = 252,480,000 lb.
Seed Cotton = Cotton Lint ÷ .375 = 252,480,000 ÷ .375 = 673,280,000 lb.
Cottonseed = Seed Cotton minus lint = 673,280,000 - 252,480,000 = 420,800,000
Tons of cottonseed = 420,800,000 ÷ 2,000 = 210,400

Another method of conversion is:

Cottonseed = lint pounds X 1.667

This is an easier method of doing the same conversion as is shown above but without progressing through the logical steps as shown.

APPENDIX C - CONTAINERS USED IN CALIFORNIA FOR FRESH FRUITS AND VEGETABLES

TABLE OF CONTAINER NET WEIGHTS

THIS TABLE IS FOR YOUR GUIDANCE FOR CONTAINERS THAT ARE MARKED A SPECIFIC WEIGHT AND THOSE CONTAINERS SHOWING NO WEIGHT MARKINGS.

COMMODITY	CONTAINERS	WEIGHT
APPLES	Ctn, tray or cell pack, bu bskt/ctn and 1-1/8 bu ctn loose pack	40
	Ctn 12 3-lb film bags	36
APRICOTS	Lug loose	24
	Ctn 2-lyr tray pack	18
ARTICHOKES	Wax treated ctn, by count, loose pack including imports	23
ASPARAGUS	1/2 pyramid ctn/crt	15
	1/2 pyramid ctn/crt	13.5
	1/2 ctn/crt (MX/CL)	12
	Pyramid ctn/crt	30
AVOCADOS	Flt/ctn 1-lyr	13
	Flt/ctn 2-lyr	26
	4/5 bu ctn	40
	Flt/ctn 2-lyr (CL)	24
BANANAS	Box/ctn	40
	Ctn, Institutional pack	50
BEANS		
Green	Bu containers	30
BEETS		
Bunched	Ctn/crt, 24's	38
	Ctn/crt, 12's	20
Topped	Sks	25&50
BLUEBERRIES	Flt 12 1-pint cups	11
	Flt 12 250-gram cups	9
BROCCOLI	Ctn/crt, 14 & 18 bchs	23
BRUSSEL		
SPROUTS	Ctn loose	25
	Ctn 12 10-oz cups	8
CABBAGE	Ctn/crt/sack	50
	Ctn (CA)	45
Savoy	Ctn/crt/sack	40

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
CANTALOUPS	1/2-ctn/crt	40
	2/3-ctn/crt	54
	Jumbo crt	80
	Bu bskt and 1-1/9 bu ctn/crt	40
CARROTS		
Topped	Sks 48 1-lb & 24 2-lb	48
	Sks large loose	50
	Sks large loose	25
Bunched	Ctn/crt bchd 24's	26
Mini	Ctn 20 12-oz film bags	15
CAULIFLOWER (Including brocco-flower)	Ctn, 12 & 16 film wrpd, trimmed heads	25
	Catskill ctn	50
	LI wbd crt	60
CELERY	Ctn/crt	60
Hearts	Ctn, 12, 18 and 24 film bags	28
CHERRIES	Lug or ctn (Northwest)	20
	Lug or ctn (CA)	18
	Ctn (CL)	11
CHINESE CABBAGE	Celery crt	50
	WGA crt	70
	1-1/9 bu ctn/crt	40
	1.3 bu crt	45
CORN, SWEET	Wbd crt (East/South)	42
	Sack	37
	Ctn (West)	50
CRANBERRIES	Ctn 24 12-oz film bags	18
CUCUMBERS	Bu & 1-1/9 bu ctn	55
	Ctn, 24's	22
	Ctn, 36-42s (CA)	24
	Ctn, 48's	30
Greenhouse	Ctn	12
	Ctn (CA)	16
EGGPLANT (Includ-ing Italian, Chinese, and Japanese)	Bu & 1-1/9 bu ctn/crt	33
	1/2 and 5/9 bu lug	17

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
ESCAROLE-ENDIVE	1-1/9 bu ctn/crt	25
	1.3 bu crt	30
	Ctn, 24's	34
Endive-Withloof	Ctn	10
FRUITS, OTHER		
Apple pears	Ctn 2-lyr	22
	Ctn 1-lyr	11
Atemoya		
Burros		
Cactus Pears		
Carambola	Ctn 1-lyr	
Cherimoya		
Feijoas		10
Figs	Flat 1-lyr traypack	8
Fijola		
Guava		
Kiwano		
Loquat	Flat	20
Lychee		
Manzano		
Olives fresh	Ctn/lug	26
Passion Fruit		
Pepinos		
Quince	Bu ctn	40
	Ctn/lug 2-lyr tray pack	22
Tamarillos		8
GARLIC	Ctn/crt	30
	Lug (South America)	22
GRAPEFRUIT	4/5 bu ctn/crt	40
	Ctn (AZ & CA)	40
	7/10 bu ctn (TX)	40
GRAPES		
Table	Ctn/lug	22&23
	Ctn/lug (Chile)	18
	Ctn 12 1-qt bskt	18
	Crt 8 2-qt bskt	24
	12-qt bskt	20
Juice	Lug	36&42
GREENS (Exc Spin)	Various containers loose or bunched	25
	Crt Bunched 12's	12
	1-2/5 bu ctn bchd (TX)	35
HONEYDEWS	2/3 ctn, var counts	30
	Crt Incl Imports	30

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
KIWIFRUIT	Flt 1-lyr (NZ)	8
	Flt 1-lyr (CA)	7
	Ctn, loose	23
	Ctn 20 1-lb film bag	20
LEMONS	Ctn (AZ & CA)	38
	4/5 bu ctn	42
	Ctn/crt (CL & SP)	40
LETTUCE		
Iceberg	Ctn 24's, 18s, 30s	50
Romaine	1-1/9 bu ctn/crt	22
	Ctn 24s (East)	22
	2/3 ctn/crt, 24's (West)	40
	1.3 bu crt	28
Other		
Boston	1-1/9 bu crt	22
	Ctn, 24's	20
Bibb	Bskt/ctn 12-qt	5
	Flt ctn	10
Looseleaf	1-1/9 bu crt	14
	Bskt/ctn, 24-qt	10
	Ctn/crt, 24's	25
	4/5 bu crt	20
Processed	Ctn (chopped)	20
	Ctn (cleaned/cored)	30
	Bin-bulk	1000
LIMES	Ctn	10
	Ctn (FL)	38
	Ctn (CA & MX)	40
MANGOES	1-lyr flt/ctn	14
	Ctn/lug (Imports)	10
MISC BERRIES	Flts 12 1/2-pt bskt	6
	Flts 12 1-pt bskt	11
MISC CITRUS		
Blood Orange	4/5 bu ctn	43
Citron	4/5 bu ctn	43
Clementine	Ctn (Imports)	22
K-Early	4/5 bu ctn	45
Kumquats	Ctn (FL)	23
	Ctn, loose (CA)	10
Lemon/Lime	Ctn (FL)	38
Osceola	4/5 bu ctn	43
Pomelos	Determinal locally	
Royal mandarines	Ctn (AZ, CA)	40
Satsumas	Ctn (AZ, CA)	40
Uglifruit	4/5 bu ctn	45

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
MISC HERBS		
Anise)	2/3 ctn/crt	45
	WGA crt	65
	Celery crt	50
	Ctn, 24s	40
Arrugula)		
Basil)		
Bay Leaves)		
Borage)		
Caraway)		
Celeriac)		
Chervil)		
Chives)		
Cilantro)		
Cipolinos)		
Coriander)		
Dill)		
Dry Eschallot)	Determined locally	
Horseradish)		
Lemon Grass)		
Margoram)		
Mint)		
Oregano)		
Rosemary)		
Sage)		
Salsify)		
Savory)		
Sorrel)		
Tarragon)		
Thyme)		
Watercress	Ctn, bchd	8
MISC ORIENTAL VEGETABLES		
Bean sprouts		
Bittermelon		
Bok Choy		
Daikon		
Dongua		
Gai Choy		
Gobo		
Kobocha		
Lo Bok		
Long Beans		
Moqua		
Opo		
Sinqua		
Taro Root		
Winter melon		

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
MISC TROPICAL F&V		
Apio)		
Arum)		
Batatas)		
Blanca)		
Breadfruit)		
Calabaza)		
Casava)		
Chayote)		
Coconuts)	Determined locally	
Dasheen)		
Dates)		
Gandules)		
Ginger root)		
Honeyberry)		
Jicama)		
Malanga)		
Pangana)		
Quenapas)		
Sapote)		
Sugarcane)		
Tamarillo)		
Tamarindo)		
Taro)		
Yams)		
Yautia)		
Yucca)		
MXD CITRUS	See individual commodities	
MXD DECIDUOUS	See individual commodities	
MXD & MISC MELONS	2/3 ctn, various count incl imports	30
MXD VEGETABLES	See individual commodities	
MUSHROOMS	10-lb ctn	10
	4-qt bskt	3
	Ctn, 16 8-oz trays	8
	Ctn, 12 1-lb trays	
NECTARINES	Ctn/lug, 2-lyr tray pack	22
	1/2 bu ctn, loose	25
	Ctn/lug 2-lyr tray pack (CL)	18
OKRA	Bu bskt/crt/hmpr	30
	1/2 bu bskt/crt/lug	15
	5/9 bu crt/flt	18

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
ONIONS, DRY	Sks	50
	Ctn	40
	Sks (Red & Boilers)	25
	Ctn & sks 12 3-lb	36
	Ctn & sks 16 3-lb	48
ONIONS, GREEN	Ctn, 48 bchs	13
	Ctn, 36 bchs	11
	Ctn/crt, 24's bchs-bulb type	20
Leeks	4/5 bu ctn/crt, bchd	20
ORANGES	4/5 bu ctn/crt	43
	Ctn (AZ & CA)	38
	7/10 bu ctn (TX)	42
	1-1/5 bu crt (IS)	48
PAPAYA	Ctn	10
PARSLEY	Bu bskt, 1-1/9 bu ctn/crt, 60 bchs	21
	Ctn/crt 30 bchs	11
	12-qt bskt lse bchs	6
Parsley root	Determined locally	
PARSNIPS	1/2 bu bskt/ctn	25
	25 lb sks	25
	Bu bskt	50
PEACHES	3/4 bu ctn/crt	38
	Ctn 2-lyr	22
	Western peach box	18
	1/2 bu ctn/crt	25
	Crt/flt 1-lyr	11
	Ctn/lug 2-lyr (CL)	18
PEARS	4/5 bu box/ctn (CA)	45
	Ctn	36
	4/5 bu box/ctn (Northwest & CL)	45
	1/2 ctn/lug (CA & Northwest)	23
	Bu bskt/ctn/crt	48
PEAS, GREEN (Including China, sugar and sugar snap)	Bu bskt/crt/hmpr and 1-1/9 bu crt	30
PEAS, OTHER THAN GREEN		
Edible pod	As marked	
Snow	10-lb ctn	10
Southern	Bu hmpr	25

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
PEPPERS		
Bell	Bu & 1-1/9 bu ctn/crt	28
	Ctn/crt (MX)	30
	1/2 bu ctn	15
	1-1/4 bu ctn	35
	Flt ctn (NL)	11
Other		
	1/2 or 5/9 bu	15
	1 1/9 bu	30
PERSIMMONS	Ctn/lug 1-lyr tray pack	11
	Ctn/lug 2-lyr tray pack	22
PINNEAPPLES	Ctn/flt 1-lyr	20
	Ctn/flt 2-lyr	40
PLANTAINS	Ctn	50
PLUMS-FRESH-PRUNES		
Plums	1/2 bu ctn	30
	Ctn/lug 2-lyr (CL)	18
Prunes	1/2 bu ctn	30
POMEGRANATES	Ctn/lug 2-lyr	22
POTATOES (Includes table, chipper and seed)	Sks	100
	Ctn/sks	50
	Baled 5 10-lb	50
	Baled 10 5-lb	50
	Cwt	100
PUMPKINS	Determined locally	
RADISHES		
Topped	Bskt/ctn, 30 6-oz	12
	14 1-lb	14
	Sacks or film bags loose	40
	Bskt/ctn, 24 8-oz	12
Bunched	Ctn/crt 48's	35
	4/5 bu ctn/lug	30
	16-qt bskt, 24's	15
RASPBERRIES	Flt 12 6-oz cups	5
	Flt 24 6-oz cups	9
	Flt 12 1/2-pt	6
RHUBARB	Western ctn/lug	20
	Ctn	15

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
SPINACH	Bu containers	25
	1-2/5 bu ctn/crt	32
	24-qt bskt	10
	Ctn 24's	20
SQUASH		
Soft Shell	1/2 or 5/9 ctnr	21
	Bu & 1-1/9 bu ctnr	42
	Ctn/lug (CA, MX)	26
	8-qt bskt/ctn	10
	3/4 bu ctn/crt	30
Hard Shell	1-1/9 bu crt	50
STRAWBERRIES	Flt 12 1-pt	12
	Flt 8-qt	12
	Crt 16-qt	24
	Imports	
	Ctn, tray	
	9-250 grams	5
	9-340 grams	7
	12-250 grams	9
SWEET POTATOES	Ctn	40
TANGELOS	Ctn (AZ & CA)	40
	4/5 bu ctn/crt	43
	1/2 bu ctn	40
	Bags:	
	5 8-lb or 8 5-lb	40
TANGERINES	4/5 bu ctn/crt	43
	Ctn (AZ & CA)	25
TEMPLES	4/5 bu ctn/crt	43
TOMATOES		
Vineripe	Flt 2-lyr	20
	Lug 3-lyr	30
	1/2 bu bskt	28
	Bu bskt	60
	8-qt ctn	10
Green	Ctn loose	25
TOMATOES,CHERRY	12-pt flt	15
TURNIPS AND RUTABAGAS	Bu bskt/sack	50
	1/2 bu bskt/ctn/crt, film/mesh bag	25

TABLE OF CONTAINERS AND NET WEIGHTS

COMMODITY	CONTAINERS	WEIGHT
VEGETABLES, OTHER	1/2 bu containers	
	film mesh/ bags	25
	Bu containers	30
Alfalfa sprouts		
Cactus leaf		
Cardoon		
Fiddle head		
Jerusalem artichoke		
Radicchio	Ctn 2-lyr	8
	Ctn 1-lyr	4
Radish sprout		
Tomatillo		
WATERMELONS	Ctn, vars counts	85
	Bulk	45,000
	Bins	1,050
	Ctn,(Mickey Lee)	35

APPENDIX D – BALANCE SHEET FOR LIVESTOCK PRODUCTION CALCULATIONS

Balance Sheets: The balance sheet is a statistical tool that may be used in a county as a check on estimated livestock sales during a year. In other words, a balance sheet is a method for organizing livestock data in an orderly manner so that all components of the livestock industry, at the county level, can be considered. Basically, the number of animals on hand at the beginning of the year, plus the number born and shipped in for feeding and breeding; less death loss, farm slaughter, number marketed and shipped out equals the number on hand at the end of the year. If beginning and ending inventories are available, a measure of death losses, numbers born and shipped in, a reasonable approximation of the number marketed can be derived.

Considerable detail is available on a Statewide basis for livestock inventory numbers, calf and lamb crops, and death losses. Data by county are not available. In the following table, percentages have been computed from State data. While these Statewide indicators may not be precisely true for an individual county, they may be used for checking the level of county estimates or in the balance sheet method of preparing livestock estimates. Any time a county has data on the local situation it should be used instead of the Statewide averages.

Cattle and Calves: If county inventory numbers and fed cattle marketings are available, along with the percentages from the following state table, a number of estimates for the cattle industry at the county level can be made that will be of help in determining annual sales.

Example:

	January 1	
	2010	2011
All cattle and calves (number head)	75,000	72,000
All cows and heifers that have calved (number head)	37,000	36,500
Number fed cattle marketed during 1990 (from CASS)	2,000	---

From the above data and by using the State average percentages in the following table, we are able to derive reasonable estimates of the calves born and death losses of cows and calves. With these estimated numbers we can construct a balance sheet that may be used as a basis for checking the levels of sales estimates.

RELATIONSHIP BETWEEN INVENTORY AND SPECIFIED LIVESTOCK ESTIMATES
- CALIFORNIA -

ITEM	HIGH-LOW RANGE	AVERAGE
CATTLE		
Calves born - (percent of cows and heifers that have calved on hand Jan. 1)	86 - 93	89
Death loss - calves (percent of calves born)	7.3 - 10.7	8.5
Death loss - cattle (percent of all cattle Jan. 1)	1.5 - 2.0	1.8
STOCK SHEEP 1/		
Ewes 1 year + - (percent of stock sheep Jan. 1)	80 - 86	83
Lamb Crop - (percent of ewes 1+ Jan. 1)	86 - 91	87
Death loss - lambs (percent of lamb crop)	5.6 - 8.0	7.0
Death loss - sheep (percent of stock sheep Jan. 1)	3.8 - 5.0	4.0
HOGS		
Sows farrowed - Spring (percent of all hogs Dec. 1)	10.7 - 13.8	12.1
Pigs per litter - Spring (number)	7.4 - 7.7	7.5
Sows farrowed - Fall (percent of all hogs Dec. 1)	11.3 - 12.2	11.9
Pigs per litter - Fall (number)	7.4 - 8.0	7.7
Death loss - (percent of all hogs Dec. 1)	10.7 - 12.9	11.6

1/ Excludes lambs on feed for slaughter market.

Balance Sheet Estimates:

Beginning inventory (Jan. 1, 2010 all cattle)		75,000
+ calves born (37,000 X .89)		32,930
+ inshipments		Unknown 1/
= Total herd supply		107,930
- death loss, calves (32,930 X .085)	2,799	
- death loss, cattle (75,000 X .018)	1,350	
- Ending inventory (Jan. 1, 2011 all cattle)	72,000	
= Total out	76,149	
= Supply less loss and inventory = Indicated Marketing		31,781
+ fed cattle marketed (estimated separately)		42,000
= Total number marketed during 2010		73,781

1/ Although in-shipments are an unknown factor, we have considered them as zero in this example. If a county has feedlots, these in-shipments are often taken care of by the separate "fed cattle estimate." In counties where cattle are grazed on a seasonal basis some method of estimating this number should be pursued. If not included, marketings will be short the amount of net in-shipment.

Because of price differentials between classes of cattle, it is necessary to have some idea of how many cows and how many calves are in the estimate of the number marketed. Assuming a 5-year replacement program (this may be longer or shorter in any one county's situation) and reasonably constant cow numbers, then there would be some 7,400 cows sold; (37,000 X .20). The remaining sales (24,381) are calves; (31,781 - 7,400 cows). In highly-specialized dairy counties, this may not be true. We would then estimate the marketings, by class, as follows:

Cows	7,400 head
Calves	24,381 head
Fed Cattle	42,000 head
Total	73,781 head

It can be seen that the estimated sales (73,781 head) may well count some animals twice. These would be the calves that were sold to, or placed in, feedlots within the county that would be included in feedlot marketings. However, when a weight of say 500 pounds is estimated for the calves sold and the feedlot cattle weight is on a gain basis (difference between 650 pounds [weight into lot] and 1,000 pounds [weight out of lot]), the estimated weight for a given animal is not doubled. The above method of estimating is probably the best way of putting the data together because regardless of whether the cattle go into feedlots from within the county or come from out of the county, only the gain is estimated. Also, whether the calves are sold within or outside the county is less significant than accountings for both the weight and dollar value. Thus, counties with feedlots and limited stocker operations can make use of the balance sheet without having in-shipment data. However, in range counties with large cow/calf and stocker operations, an estimate of in-shipments is necessary to account for seasonal animals on pasture.

Sheep and Lambs: New crop lambs born during the late fall before January 1 are not included. Except for a small number of bucks and wethers, the January 1 inventory of stock sheep and lambs are breeding ewes. These stock sheep are also close to being the number of sheep that will be shorn in the following year.

The balance sheet can be useful in estimating the number of sheep and lambs sold in a given county. Generally, the sheep producers in California do not raise their own replacement ewes and nearly the entire lamb crop plus cull ewes can be considered as sold each year.

Example:

Suppose County X has a January 1 inventory of 80,000 stock sheep and lambs and 82,000 on hand at the end of the year. Using the State average percentages, the estimates of a lamb crop and sales would be calculated as shown on the following page.

First, we compute ewe numbers, lambs docked and death losses, as follows:

Number of ewes 1+ January 1 (80,000 times 83%)	66,400
Lamb Crop (66,400 times 87%)	57,768
Death loss - lambs (57,768 times 7.0%	4,044
Death loss - sheep (66,400 times 4.0%)	2,656

From the preceding estimated data we can construct the balance sheet:

Balance Sheet Estimates:

Beginning inventory		80,000
+ lamb crop		57,768
+ in-shipments (replacement lambs)		17,936 1/
= Total supply		155,704
- death loss, lambs (57,768 X .07 = 4,044)	4,044	
- death loss, sheep	2,656	
- Ending inventory	82,000	
= Total out	88,700	
= Supply less loss and inventory = Indicated Marketing		67,004 2/

1/ Assuming ewe replacements will come from out of county or out of state, replacement lambs are figured in this manner: a 5-year replacement schedule for ewes (20% X 6,400 ewes = 13,280); plus replacement for death loss of ewes (2,656); plus the increase in inventory (2,000) on the assumption that the inventory increase would ordinarily be in ewe numbers rather than rams and wethers held over; equals the 17,936 replacement figure.

2/ This figure would not include all of the commercially fed lambs. Data on fed lamb marketings are not available. Commercially fed lambs should be handled in the same manner as fed cattle, i.e., the county in which the lambs are fed and marketed takes the gain only. In this way, the county of origin takes the feeder lamb weights and the feeding county the gain. Thus, weight and value are not duplicated between counties. However, this does make it necessary to estimate the total number of lambs that are fed out and the number of the "local" lambs that were marketed as feeders.

Because of the price differential between sheep and lambs, we need to estimate the number of sheep (old ewes and rams) and the number of lambs in the total number marketed. On a 5-year replacement schedule, we would expect 13,280 ewes to be culled out and sold over and above the death losses (66,400 times 20%). Under the usual California practice, the entire lamb crop would be sold (57,768 minus 4,044 death-loss). The marketings, by class, would be as follows:

Sheep (ewes)	13,280 head
Lambs	53,724 head
Total	67,004 head

The balance sheet approach uses state average percentages to compute the various components. Any one county may be quite different from the average because of the type of sheep enterprise (farm or range), conditions during the lambing season, or disease problems.

The following work sheets may be useful.

INVENTORY WORK SHEET: CATTLE AND CALVES

Beginning Inventory:

Jan. 1 this year 20 __ __

Jan. 1 prior year 20 __ __

Subtract prior year from this year (keep + or - sign)

Stock inventory, prior year

No. of cows and heifers

No. of calves born .89 X =

Death loss, calves .085 X =

Death loss, all cattle (not calves) X .018 =

Replacement heifers (no. for a 5-yr. cycle) X .20 =

Net in-shipments (if known)

Add to obtain: TOTAL SUPPLY

XXXXXXXXXXXXXX

Death loss, calves

Death loss, all cattle (not calves)

Ending inventory (Jan. 1, this year)

Add to obtain: TOTAL UNAVAILABLE FOR SALE

Subtract unavailable from total supply to obtain: INDICATED NUMBER FOR MARKETING

XXXXXXXXXXXXXX

FED CATTLE MARKETED during prior year (estimated separately)

TOTAL CATTLE MARKETED DURING YEAR (Indicated no. plus Fed Cattle)

INVENTORY WORK SHEET: STOCK SHEEP AND LAMBS

Beginning Inventory:					
Jan. 1 this year 20 __ __					
Jan. 1 prior year 20 __ __					
Subtract prior year from this year (keep + or - sign)					
Stock inventory, prior year					
No. of ewes, 1+ years	.83 X		=		
No. of lambs docked	.87 X		=		
Death loss, lambs	.07 X		=		
Death loss, ewes			X .04 =		
Death loss, sheep (not ewes)			X .04 =		
Replacement ewes (no. for a 5-yr. cycle)			X .20 =		
Net in-shipments (if known)					
Add to obtain: TOTAL SUPPLY				XXXXXXXXXXXXX	
Death loss, lambs					
Death loss, ewes					
Death loss, sheep (not ewes)					
Ending inventory (Jan. 1, this year)					
Add to obtain: TOTAL UNAVAILABLE FOR SALE					
Subtract unavailable from total supply to obtain: INDICATED NUMBER FOR MARKETING					XXXXXXXXXXXXX

PRICING WORK SHEET: CATTLE AND CALVES

Number of calves born (+) _____

Death loss, calves (-) _____

Replacement heifers (-) _____

Death loss, all cattle (not calves) (needed as replacements) (-) _____

TOTAL NUMBER CALVES SOLD _____

Cows being replaced, 5-yr. cycle (+) _____

Death loss, cows (-) _____

TOTAL NUMBER COWS SOLD _____

Total No. calves sold _____ X _____ cwt./calf = _____ cwt. calves

_____ cwt. of calves X $ _____ /cwt. Avg. price = $ _____ Total revised

Total No. cows sold _____ X _____ cwt./cow = _____ cwt. cow

_____ cwt. of cows X $ _____ /cwt. Avg. price = $ _____ Total revised

Etc.

PRICING WORK SHEET: STOCK SHEEP AND LAMBS

Number of lambs docked	(+)	_____
Death loss, lambs	(-)	_____
Replacement ewes	(-)	_____
Death loss, sheep (not ewes) (needed as replacements)	(-)	_____
TOTAL NUMBER LAMBS SOLD		_____
Ewes being replaced, 5-yr. cycle	(+)	_____
Death loss, ewes	(-)	_____
TOTAL NUMBER SHEEP SOLD		_____

Total No. lambs sold _____ X _____ cwt./lamb = _____ cwt. lamb

_____ cwt. of lamb X $ _____ /cwt. Avg. price = $ _____ Total Revenue

Total No. sheep sold _____ X _____ cwt./sheep = _____ cwt. sheep

_____ cwt. of sheep X $ _____ /cwt. Avg. price = $ _____ Total Revenue

Etc.

APPENDIX E

LIST OF DATA SOURCES:

1. National Agricultural Statistics Service, California Field Office - U.S. Dept. of Agriculture, National Agricultural Statistics Service (Federal). (Also called Agricultural Statistics Branch, Division of Marketing Services, California Department of Food and Agriculture [State].) P.O. Box 1258, Sacramento, CA 95812, (916) 498-5161. Estimates Group and County Statistical Coordinator can be reached at (916) 498-5161, Ext. 123.

COUNTY DATA SUPPLIED BY THE CALIFORNIA AGRICULTURAL STATISTICS SERVICE:

The National Agricultural Statistics Service distributes a number of releases throughout the year that are of significant value to the counties in preparing their Annual Crop Reports. In addition, a number of unpublished estimates by county are prepared from data collected during the year.

The following table lists the data that are now being supplied and the approximate date available. The current year refers to the year for which the county crop report is being prepared.

Data	Estimates for (State or County)	Approximate Date Available
FIELD CROPS		
Small Grains - including wheat, barley, oats, and dry beans. Published in "Field Crops Review."	State	Mid-January
California Annual Summaries - field crops, seeds, published in "Field Crops Review."	State	Mid-February
Cotton - acreage, yield, and production	County	Early June
Prices Received by Farmers - livestock and selected major crops, current and previous year. Mailed to Commissioners	State	Mid-February
Grain Crop Estimates. Mailed to Commissioners	County	February
FRUITS & NUTS		
California Annual Summaries - fruit & nut statistics	State	February
Grape Crush Report (Prices)	Growing Areas	Preliminary - February 10 Final - March 10
Almond, Prune, & Walnut Acreage	State & County	May 10
Grape Acreage Bulletin	State & County	May 30
VEGETABLES		
Annual Vegetable Summary	State	Late January
Tomatoes for Processing - acreage, yield, and production. (Sent to producing counties only.)	County	Mid-January
Cut Flowers and Foliage County Summary	County	Mid-March
LIVESTOCK, DAIRY, & POULTRY		
Annual Summary	State	February 15
Milk Production and Value - current and revised previous year.	County	January 15
Hatchery - number of straight run chicks and poults hatched, average prices and value, current calendar year.	By County of Report Only	Mid-January

PRICE DATA:

1. NASS, CA FO - The season average prices shown in the Annual Ag Resource Directory and the Prices Received are State averages and serve as a check on the county level of prices. They are also an excellent indication of the change from the previous year. www.nass.usda.gov/ca

2. FSA - U.S. Department of Agriculture - Farm Service Agency - State Office in Davis - (530) 792-5520. See also: County Offices. www.fsa.usda.gov

3. Forest Service - U.S. Department of Agriculture - State Office in San Francisco - (415) 705-2874. See also: Local Offices. www.fs.fed.us

4. BLM - Bureau of Land Management - U.S. Department of Interior - State Office in Sacramento - (916) 978-4400. See also: Local Offices. www.blm.gov

5. California Agricultural Directory - Published by California Farm Bureau, www.cfdf.com/cad , 2300 River Plaza Drive, Sacramento, CA. (Contains addresses and phone numbers of most offices and organizations related to agriculture - a handy reference to have on hand.)

6. Market News - U.S. Department of Agriculture - Agricultural Marketing Service www.ams.usda.gov

APPENDIX F

WHY DATA SETS DIFFER: Two Totals For California Agriculture

National Agricultural Statistics Service Cash Receipts
Compared to
County Agricultural Commissioners' Reports Value of Production

Two different totals of California agriculture are published annually. The following will explain why they differ, how the two sets are collected and answer some frequently voiced questions about the justification and usefulness of the two totals. If both sets were collected in the same way, and measured exactly the same things, there would be cause for alarm at the difference. In fact they are not the same in concept or collection.

CONCEPTUAL DIFFERENCES

The National Agricultural Statistics Service (NASS) data collection system is geared to forecasting current crop levels and end-of-season estimates of production. Because it is part of a National system centered at the United States Department of Agriculture in Washington, D.C., there are exact time schedules, standardized definitions and uniform data requirements to be met. Questionnaires throughout the United States are exactly the same and data are released from Washington on precise schedules. This complex system is designed to provide maximum information to the entire agricultural marketing system, and reduce fluctuations in both prices and farm income.

The County Agricultural Commissioners' Reports are designed to document the past year's production at the end of the season, making it evident what the contribution of agriculture is to the county's economy. This concern with the total annual economic value leads to (1) valuing production at the F.O.B. shipping point rather than the producer's point of sale, (2) counting the value of home consumed, as well as marketed products, (3) adding the value of minor commodities that are not included in the NASS totals, and (4) using a calendar year rather than crop-year to estimate annual prices and volumes.

WHY DO WE HAVE TWO DATA SETS?

The Agricultural Code of California (Section 2271) requires the Agricultural Commissioners to publish annual reports on their county's production. Similarly the Federal Code (Title 7) requires the United States Department of Agriculture to collect and publish crop reports. The United States Department of Agriculture has entered into agreements with the states for the operation of cooperative State and Federal offices in each state such as the National Agricultural Statistics Service, located within the California Department of Food and Agriculture in Sacramento, and staffed by both State and Federal employees.

California's unique system of County Agricultural Commissioners has produced a set of locally collected and published annual production reports. These locally prepared reports have an opportunity to reflect the closeness of the Commissioner's staff to the agricultural producers of the county. On the State level, NASS mail surveys with phone and personal contact of non-respondents are relied upon; the number of reports is large enough to carry good statistical reliability and because of uniform questionnaires and procedures are comparable with all other states.

At the county level the number of growers that must be contacted in order to achieve statistical reliability is often such that complete contact with all growers is required. This is often possible under the Commissioners' system, and should create a confidence in the locally produced reports that would be impossible, without creating a large State statistical collecting staff. However, when data are collected at the county level for large multi-county operations some risk in duplication exists.

WHAT IS THE VALUE OF THE COMMISSIONERS' REPORTS?

The frequent requests and the extensive mailing lists built up by each Commissioner's office attests to the value placed on these reports. Examining the mailing list impresses one with the wide range of people and agencies represented. Banks and agricultural credit agencies are prominent on every list. Agricultural businesses use the information for locating outlets and offices. Public planning offices and both public and private research agencies are well represented on the lists. Ranchers and growers, schools and libraries, and all the news media – online, newspapers, radio and TV stations -- are requesting the reports regularly.

At the same time there has been a build-up of confidence in the Commissioners' Reports at the local level in California, there has also been increasing reliance by the National agricultural marketing system on timely USDA-NASS reports.

WHAT WOULD HAPPEN WITHOUT THE COMMISSIONERS' REPORTS?

Other states must rely on other sources for county agricultural data. The Census of Agriculture by the United States Department of Commerce reports production by county every five years, but delays in data preparation and release, lead users to resort to 5 or 10-year-old material since more recent data are unavailable.

Expectations have been created through the regular publication of the Commissioners' Reports. The local media and agribusiness would be especially frustrated by the lack of information if the Commissioners' Reports were discontinued. County estimates are included in a few NASS programs, but they are estimates based on smaller samples and do not have as much county level information behind them as the Commissioners' Reports. This situation varies greatly between commodities. Milk statistics are especially well recorded at all levels and sugar beet processors' reports can be divided among producing counties, while in contrast, the wheat and barley estimates are based on growers' responses to mailed surveys, a system that produces good State and Regional totals, but some gaps in county-level data.

The demand for local data is increasing, especially from the business world and planning agencies. A valuable time series would be lost if the Commissioners' Reports did not continue. To show changes in agriculture over the years, it is necessary to have the data collected in the same way every year. Changing the point of valuation from the shipping point to the farm gate or eliminating the estimation of home-consumed foods or the value of stubble fields and range pasture (for example) would cause a change in the series and reduce the value of past years' work.

KEEPING OUR PERSPECTIVE!

The value of a data series is related to the importance of what it measures. In comparison, many California counties' agricultural incomes equal or exceed other states or even foreign countries. The job of documenting such a segment is not to be taken lightly. Fresno, our leading county, has a greater agricultural production than the states of South Dakota or Michigan. This underscores the size of the task and reaffirms the importance of maintaining and improving the measurement and reporting of California's agriculture.

CONCLUSION

A distinct difference between the total value given to California agriculture by the NASS and the County Agricultural Commissioners is explained by the variation in collection and valuation systems. Each has its own concept and will be published separately as long as the State Agricultural Code and the Federal Code require somewhat different information to be produced by the respective agencies.

Cooperation between the agencies will enhance the reliability of all the data, and what seems to some a duplication of effort can be mutually beneficial. Reinforcement rather than repetition can result if information-gathering agencies assist each other whenever possible.

APPENDIX G

CALIFORNIA MARKETING PROGRAMS

Alfalfa

Alfalfa Seed Production Research Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-4792; Fax (559) 591-5744

Apples

California Apple Commission
770 East Shaw Avenue, Suite 310
Fresno, CA 93710-7708
(559) 225-3000; Fax (559) 225-3111
www.calapple.org

Artichokes

California Artichoke Advisory Board
Post Office Box 747
Castroville, CA 95012-0747
(831) 633-4411; Fax (831) 633-0215
www.artichokes.org

Asparagus

California Asparagus Commission
1432 McCabe Cove
El Centro, CA 92243-9741
(760) 356-4906 Tel/Fax
www.calasparagus.com

Avocado

California Avocado Commission
12 Mauchly, Suite L
Irvine, CA 92618-3127
(949) 341-1955; Fax (949) 341-1970
www.avocado.org

Beans

Dry Bean Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-4866; Fax (559) 591-5744
www.calbeans.com

Beef

California Beef Council
4640 Northgate Boulevard
Suite 115
Sacramento, CA 95834-1143
(916) 925-2333; Fax (916) 925-8155
www.calbeef.org

Blueberry

California Blueberry Commission
770 East Shaw Avenue, Suite 310
Fresno, CA 93710-7708
(559) 225-3000; (559) 225-3111 Fax

California Grown

Buy California Marketing Agreement
1521 I Street
Sacramento, CA 95814-2016
(916) 441-5302; Fax (916) 446-1063
www.californiagrown.org

Carrot

California Fresh Carrot Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-5675; Fax (559) 591-5744

Celery

California Celery Research Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-0434; Fax (559) 591-5744
www.celeryresearch.com

Cherry

California Cherry Marketing Program
Post Office Box 877
Lodi, CA 95240-0877
(209) 368-0685; Fax (209) 368-4309
www.calcherry.com

Citrus

California Citrus Nursery Program
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-9005; Fax (559) 591-5744

Citrus Research Board
Post Office Box 230
Visalia, CA 93279-0230
(559) 738-0246; Fax (559) 738-0607
www.citrusresearch.com

Dairy Products

California Manufacturing Milk Advisory Board
3800 Cornucopia Way, Suite D
Modesto, CA 95358-9494
(209) 525-6875; Fax (209) 525-6899
www.realcaliforniacheese.com

California Milk Processor Board
101 South El Camino Real, Suite 202
San Clemente, CA 92672-5503
(949) 481-6620; Fax (949) 481-6680
www.gotmilk.com

California Milk Producers Advisory Board
400 Oyster Point Boulevard
Suite 220
South San Francisco, CA 94080-1952
(650) 871-6455; Fax (650) 583-7328
www.realcaliforniamilk.com

Dairy Council of California
1101 National Drive, Suite B
Sacramento, CA 95834-1274
(916) 263-3560; Fax (916) 263-3566
www.dairycouncilofca.org

Dates

California Date Commission
Post Office Box 1736
Indio, CA 92201-1736
(760) 347-4510; Fax (760) 347-6374
www.datesaregreat.com

Figs

California Fig Advisory Board
600 West Shaw Avenue, Suite 300
Fresno, CA 93704-2420
(559) 243-8600; Fax (559) 243-8605
www.californiafigs.com

Flowers

California Cut Flower Commission
Post Office Box 90225
Santa Barbara, CA 93190-0225
(916) 441-1701; Fax (925) 905-4489
www.ccfc.org

Garlic and Onions

California Garlic and Onion Dehydrator Advisory Board
4926 43rd Street, Suite 130
McClellan, CA 95652
(916) 564-1025; Fax (916) 564-1336

California Garlic and Onion Research Board
1629 Pollaski, Suite 111
Clovis, CA 93612-2654
(559) 297-9322; Fax (559) 297-9341

Grapes

California Grape Rootstock Improvement Commission
1521 I Street
Sacramento, CA 95814-2016
(916) 441-2031; Fax (916) 446-1063

California Table Grape Commission
392 West Fallbrook, Suite 101
Fresno, CA 93711-6150
(559) 447-8350; Fax (559) 447-9184
www.freshcaliforniagrapes.com

California Winegrape Inspection Marketing Program
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-4960; Fax (559) 591-5744
www.cwiab.org

Lake County Winegrape Commission
Post Office Box 877
Lakeport, CA 95453-0877
(707) 995-3421; Fax (707) 995-3618
www.lakecountywinegrape.org

Lodi Winegrape Commission
2545 West Turner Road
Lodi, CA 95242-4643
(209) 367-4727; Fax (209) 367-0737
www.lodiwine.com

Mendocino Winegrape and Wine Commission
Post Office Box 1409
Ukiah, CA 95482-1409
(707) 468-9886; Fax (707) 468-9887
www.truemendocinowine.com

Sonoma Winegrape Commission
3637 Westwind Boulevard
Santa Rosa, CA 95403-1067
(707) 522-5861; Fax (707) 522-5866
www.sonomawinegrape.org

Kiwifruit

California Kiwifruit Commission
1521 I Street
Sacramento, CA 95814-2016
(916) 441-0678; Fax (916) 446-1063
www.kiwifruit.org

Lettuce

California Leafy Green Products Handler Marketing Agreement
1521 I Street
Sacramento, CA 95814-2016
(916) 441-1240; Fax (916) 446-1063
www.caleafygreens.ca.gov

California Leafy Greens Research Program
512 Pajaro Street
Salinas, CA 93901-3313
(831) 424-3782; Fax (831) 424-3785
www.calgreens.org

Melons

Cantaloupe Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-5715; Fax (559) 591-5744
www.cmrb.org

California Melon Research Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-0435; Fax (559) 591-5744
www.cmrb.org

Nuts

California Pistachio Research Board
4938 East Yale Avenue, Suite 102
Fresno, CA 93727-1576
(559) 255-6480; Fax (559) 255-6485
www.acpistachios.org

California Walnut Commission
101 Parkshore Drive, Suite 250
Folsom, CA 95630-4726
(916) 932-7070; Fax (916) 932-7071
www.walnuts.org

Peaches

California Cling Peach Growers Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 595-1425; Fax (559) 591-5744
www.calclingpeach.com

Peaches, Plums and Nectarines

California Treefruit Marketing Agreement
Post Office Box 968
Reedley, CA 93654-0968
(559) 638-8260; Fax (559) 638-8842
www.eatcaliforniafruit.com

Pears

California Pear Advisory Board
1521 I Street
Sacramento, CA 95814-2016
(916) 441-0432; Fax (916) 446-1063
www.calpear.com

Peppers

California Pepper Commission
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-3925; Fax (559) 591-5744

Plums

California Dried Plum Board
3840 Rosin Court, Suite 170
Sacramento, CA 95834-1699
(916) 565-6232; Fax (916) 565-6237
www.californiadriedplums.org

California Plum Marketing Program
Post Office Box 968
Reedley, CA 93654-0968
(559) 638-8260; Fax (559) 638-8842
www.eatcaliforniafruit.com

Potatoes

California Potato Research Advisory Board
531-D North Alta Avenue
Dinuba, CA 93618-3202
(559) 591-0436; Fax (559) 591-5744

Raisins

California Raisin Marketing Board
2445 Capitol Street, Suite 200
Fresno, CA 93721-2236
(559) 248-0287; Fax (559) 224-7016
www.loveyourraisins.org

Rice

California Rice Commission
8801 Folsom Boulevard, Suite 172
Sacramento, CA 95826-3249
(916) 387-2264; Fax (916) 387-2265
www.calrice.org

California Rice Research Advisory Board
Post Office Box 507
Yuba City, CA 95992-0507
(530) 673-6247; Fax (530) 674-0426
www.carrb.com

California Wild Rice Board
4125 Temescal Street, Suite D
Fair Oaks, CA 95628-7558
(916) 863-0312; Fax (916) 863-0304
www.cawildrice.com

Seafood

California Salmon Council
Post Office Box 2255
Folsom, CA 95763-2255
(916) 933-7050; Fax (916) 933-7055
www.calkingsalmon.org

California Sea Urchin Commission
Post Office Box 2077
Folsom, CA 95763-2077
(916) 933-7054; Fax (916) 933-7055
www.calurchin.org

Seed

California Seed Advisory Board
1220 N Street, Room A-372
Sacramento, CA 95814
(916) 654-0435; Fax (916) 654-0986

Sheep

California Sheep Commission
Post Office Box 1520
Folsom, CA 95763-1520
(916) 933-7667; Fax (916) 933-7055
www.californialamb.com

Strawberries

California Strawberry Commission
Post Office Box 269
Watsonville, CA 95077-0269
(831) 724-1301; Fax (831) 724-5973
www.calstrawberry.com

Processing Strawberry Advisory Board
Post Office Box 929
Watsonville, CA 95077-0929
(831) 724-5454; Fax (831) 724-0295

Tomatoes

Processing Tomato Advisory Board
Post Office Box 1800
Davis, CA 95617-1800
(530) 759-7501; Fax (530) 759-7504
http://ptab.org

Wheat

California Wheat Commission
1240 Commerce Avenue, Suite A
Woodland, CA 95776-5923
(530) 661-1292; Fax (530) 661-1332
www.californiawheat.org

USDA
NATIONAL AGRICULTURAL STATISTICS SERVICE

California Field Office
P.O. Box 1258
Sacramento, CA 95812-1258
Phone: (916) 498-5161 Fax: (916) 498-5186

www.nass.usda.gov/ca