Appendix C.
Statistical Methodology

THE SCREENING PHASE AND THE MAIL LIST MODEL

The 1997 Census of Agriculture featured a pre-census screening phase that surveyed selected records, by mail or telephone, for presence or absence of agricultural activity. Records selected for screening had a low probability of qualifying as farms. All records responding to the screener and reporting no agricultural activity were removed from the census mail list. Eliminating nonfarm records from the mail list reduced respondent burden and data collection costs.

The screening phase included nearly 500,000 records. Records were selected for screening using one of the following criteria:

1) Records on selected agriculture specialty lists that had no other list source,

2) Records identified by a mail list model as having a low probability of being a farm.

A mail list model predicted the probability that an addressee on the 1997 preliminary census mail list operated a farm. The model defined groups based on combinations of characteristics such as source(s) of the mail list record, expected value of agricultural production, and geographic location. Farm proportions were estimated for these groups by calculating the proportion of 1992 census respondent records that were farms which exhibited the characteristics defined by the group. This proportion, also called the in-scope rate, provided an estimate of the probability that an addressee in the group operated a farm.

Each address record on the 1997 preliminary census mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms. Records with a farm probability of approximately 30 percent or less were selected for screening, along with records included on selected agriculture specialty lists as noted above.

Before screening, the preliminary census mail list consisted of 3,314,790 records. There were 478,298 records selected for screening. Of these, 125,570 records were determined to be nonfarms as a result of the screening phase and were removed. These records were removed from the final census mail list. The remaining 3,189,220 records received census report forms.

CENSUS SAMPLE DESIGN

All name and address records on the final census mail list were designated to receive a 1997 Census of Agriculture report form. Two different types of census report forms, sample and nonsample, were used to collect data. Sections 1 through 20 and 28 through 32 of the sample form were identical to sections on the nonsample census form. Sample form sections 21 through 27 contained additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, farm-related income, and hired workers. There were 11 regional versions of the nonsample form and 13 regional versions of the sample form with listings of crops varying by region. These different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island and to a sample of records in other States selected from the final mail list. Mail list records were selected into the sample with certainty if they (1) were expected to have large total value of agricultural products sold or large acreage, (2) were multi-unit operations (i.e., separate farms producing under one company organization), (3) were in a county with less than 100 farms in 1992, or (4) had other special characteristics. Farms with special characteristics were abnormal farms, such as institutional farms, experimental and research farms, and Indian reservations. Mail list records in counties containing 100 to 199 farms in 1992 were systematically sampled at a rate of 1 in 2; records in counties containing 200 to 299 farms in 1992 were systematically sampled at a rate of 1 in 4; and records in counties containing 300 or more farms in 1992 were systematically sampled at a rate of 1 in 6. The remaining mail list records not chosen to receive the sample form received the nonsample census form. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties.

EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The census of agriculture complex edit and imputation system is an automated computerized system that performed the following functions:

- Ensured reasonable relationships between/among data items, values for various sizes of farms, combinations of commodities, and economic interactions.

- Ensured necessary consistencies were present (there were more than 70 distinct consistency requirements).

- Ensured climatic, geographic, legal, and physical constraints were met.

The system performed these and similar functions for more than 900 data key codes for sample records and approximately 850 data key codes for nonsample records.

For the 1997 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data for that record from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known fixed price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships was assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several Standard Industrial Classifications and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for the same sections of the report form was processed by the

computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions. An edit run usually consisted of 10,000 or more records.

After the initial computer edit, all keyed reports not meeting the census farm definition were reviewed to ensure that the data had been keyed correctly. Edit referrals were generated for 17 percent of the reports included as farms; they were reviewed for keying accuracy and to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record re-edited.

CENSUS ESTIMATION

The 1997 Census of Agriculture used two types of statistical estimation procedures to account for whole farm nonresponse and sample data collection. The procedures were necessary because some farm operators did not respond to the census despite numerous attempts to contact them, and estimates for certain data items were based on a sample of farm operators rather than a full enumeration.

Whole Farm Nonresponse Estimation

Whole farm nonresponse to the census occurred when a response was never received for a record. If the record was a large farm, as defined by value of production or acreage, or a unique farm operation, intensive telephone or personal followup was conducted during census processing to obtain a response. If these attempts failed, either the NASS survey database, the census historic database, or other more current sources were used to impute data for the record.

During mail list development, the State Statistical Offices (SSOs), in an effort to reduce respondent burden, identified records that participated in multiple NASS surveys and/or situations where there were special reporting relationships between an enumerator and a respondent. These records were referred to as tagged records. The SSOs had full responsibility for the data collection for these records, including imputation of data for the record if a response was not obtainable.

Whole farm nonresponse that occurred within the remaining universe of records was accounted for by a statistical weighting procedure. The weights of the responding farms were adjusted to account for farms that did not respond. The information needed for this process was obtained from the 1997 Nonresponse Survey. The SSOs conducted the nonresponse survey using computer-assisted telephone interviewing (Blaise-CATI) or personal enumeration when telephone contact was not possible. Alaska and Rhode

Island were not eligible for the survey because all nonrespondents were subject to extensive followup. In these cases, data were collected by telephone or other methods. The nonresponse survey collected information from a sample of census nonrespondents to determine farm status and estimate the proportion of farms in the nonresponse universe. The information was then used to estimate the number of nonresponding farm operations by State and county.

The 1997 Nonresponse Survey consisted of a stratified systematic sample of the nonresponse records within each State. The sample was selected near the end of the census follow-up operations. Five strata were defined to be homogeneous on probability of farm status and were based on screener status, total value produced, and list source(s) of the mail list record.

Based on survey results, estimates of the proportion of census nonrespondents operating farms were made for each stratum in the State. The estimates were applied to the total number of census nonrespondents in that stratum, providing a State estimate of the number of census nonrespondents that operated farms. The number of census nonrespondents that operated farms was then derived for each county by stratum. This estimation procedure assumed that the distribution of farms in a stratum by county was the same for census nonrespondents as for census respondents.

Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. Census respondent farms that were designated as large farms or tagged records or as farms that exhibited "rare" commodities were ineligible to represent nonrespondent farms and were excluded from the nonresponse weighting procedure. These records were assigned nonresponse weights of 1.0.

The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms, divided by the number of eligible census respondent farms. Stratum controls were established to ensure that this weight never exceeded 2.0. For the published tabulations of the complete count items, the noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record. For the sample count items, the noninteger nonresponse weight was used in the calculation of the final sample weight.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in this table are percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided in this table do not reflect the effect of item nonresponse to individual census data items. The effect of this item nonresponse is discussed in the "Census Nonsampling Error" section.

Sample Estimation

Sample data estimation determined the population totals that would have resulted from a complete census for the items in sections 21 through 27 of the sample form. The estimates were obtained from a weighting procedure that assigned a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm were multiplied by 6.

The noninteger sample weight is calculated for each respondent sample farm by multiplying the noninteger nonrespondent weight by the sampling factor. For published tabulations of the sample count items, the noninteger sample weight was randomly rounded to an integer weight for each record. For certainty farms, the sampling factor equals 1 so the sample weight is just equal to the nonresponse weight. Sampling factor calculation for non-certainty farms is described below.

Within a county, the weighting procedure for non-certainty farms was performed in three steps using three variables. The first variable contained eight 1997 total value of agricultural production (TVP) groups. The second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were:

TVP	SIC	Acres
$1 to $999	01, 08 All crops	1 to 69
$1,000 to $2,499	02 All livestock	70 or more
$2,500 to $4,999		
$5,000 to $9,999		
$10,000 to $24,999		
$25,000 to $49,999		
$50,000 to $99,999		
$100,000 or more		

The first step in the estimation procedure classified the sample records into 32 mutually exclusive initial strata formed by the three variable groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample factor equal to the ratio of the total farm count to the sample farm count. This factor was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure combined, when necessary, the 32 initial strata to increase the reliability of the weighting procedure. Any stratum that contained less than 10 sample farms or had a factor greater than twice the mail sample rate was collapsed with another stratum. The mail sample rate was either 2, 4, or 6,

depending on whether the county had a 1 in 2, 1 in 4, or 1 in 6 sample selection rate. The collapsing occurred within the 32 initial strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each final strata and used to calculate final sample factors.

The final step calculated the noninteger sample weight as the product of the final sampling factor and the noninteger nonresponse weight. As described previously, the noninteger sample weight for each record is randomly rounded to an integer weight which is used in published tabulations. For example, if the final weight for a farm was 7.2, then the record would be rounded to either 7 or 8.

CENSUS SAMPLING ERROR

The sample for the 1997 Census of Agriculture was only one of a large number of possible samples of the same size that could have been selected using the same sample design. In this context, "sample" refers to the sample for both the nonresponse survey and the selection of farms to receive sample forms.

The standard error, or sampling error, of a survey estimate is a measure of the variation among the estimates from all possible samples. It is a measure of precision - that is, how well an estimate from a particular sample approximates the true population parameter. The percent relative standard error of an estimate is defined as the standard error of the estimate divided by the value of the estimate, then multiplied by 100. The true population parameter can be defined or conceptualized several different ways. One way is to think of the true population parameter as the average result of all possible samples (selected using a given sample design). A second way is to think of the true population parameter as the figure obtained from carrying out a complete enumeration of the population.

If all possible samples were selected, each of the samples surveyed under essentially the same conditions, and an estimate and its standard error calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the true population parameter.

2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the true population parameter.

The following example illustrates the computations necessary to produce a confidence statement for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is 0.1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94).

If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the true population parameter. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. All farm operators were asked the complete count items. Examples of complete count items were: land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Only a sample of farm operators were asked the sample count items. These items appeared only in sections 21 through 27 of the sample form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, farm-related income, and hired workers.

Variability in the estimates of complete count items was due only to the nonresponse survey estimation procedure. With regard to the estimates of sample count items, variability was due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Therefore, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates. Percent relative standard error is a common measure of variability.

Table B provides the generalized reliability estimates of the estimated number of farms in a county that reported complete count and sample count items. The top half of the table shows the percent relative standard errors for estimated number of farms in a county that reported a complete count item, and the bottom half relates to sample count items. These reliability estimates are derived from regression equations. Separate regression equations were used to produce each section of table B. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for the appropriate counties in the State. To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1992 Census of Agriculture, variability in sample count

item estimates came only from nonresponse survey estimation procedures. The estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Use caution when referring to the "Sample Count Item" section of table B to make inferences on counties. Some counties may have been sampled at the rate of 1 in 2 or 1 in 4, but the reliability estimates shown were computed using only data from counties sampled at the rate of 1 in 6. Therefore, the reliability estimates shown would likely be overstated (or conservative) if the county was actually sampled at a higher rate.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of $10,000 or more.

Table E presents the standard error for percent change in State totals from 1992 to 1997. The general purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1997 and the 1992 estimate for that characteristic to the 1992 estimate. This ratio is multiplied by 100 to obtain the percent change. The standard error of a percent change estimate is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in the (1) total number of farms, (2) number of large farms included with certainty, (3) size classifications of the farms sampled, (4) amount of nonresponse, (5) general agricultural characteristics, and (6) specific characteristic being measured.

The farm counts and related estimates displayed in tables A through F relate to unadjusted census totals. These totals are the same as the "Census total" displayed in the first column of table G (which will be discussed later in this appendix).

For most of the tables in this appendix, and also many of the tables throughout the publication, there is a footnote that reads "Data are based on a sample of farms." The table entries that this footnote relate to are estimates of totals. To illustrate, suppose that the entry "other farm-related income" is shown with this footnote and has some number of farms given. This number given would represent an estimated total number of farms with "other farm-related income," based on the farms that were in the sample. This number should not be interpreted as the number of farms in the sample that have "other farm-related income."

CENSUS NONSAMPLING ERROR

The accuracy of the census counts is affected jointly by sampling errors (described in the previous section) and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures. Nonsampling errors arise from many sources, including respondent or enumerator error or incorrect data keying, editing, or imputing for missing data. These nonsampling errors are further discussed in this section. Nonsampling error due to mail list incompleteness and duplication as well as misclassification of records on the mail list is called coverage error. The section titled "Coverage Evaluation" discusses the evaluation studies conducted to measure the extent of this error in the census.

Respondent and Enumerator Error

Incorrect or incomplete responses to the census report form or to the questions posed by an enumerator can introduce error into the census data. To reduce reporting error, detailed instructions for completing the report form were provided to each respondent. Questions were phrased as clearly as possible based on previous tests of the report form. In addition, each respondent's answers were checked for completeness and consistency by the complex edit and imputation system.

Item Nonresponse

As information flowed from data collection to tabulation, various types of item nonresponses were identified on the census report forms. Nonresponse to particular questions on the census report form that logically should have been present created a type of nonsampling error in both complete count and sample count data. In this case, information from a similar farm was used to impute for these missing data items. The resulting data may have been biased if the characteristics of the nonreporting respondents were different from those of reporting respondents for those items.

Processing Error

All phases of processing for each census report form were potential sources for the introduction of nonsampling error. An automated check-in recorded that the report had been returned and excluded from further followup mailings. Approximately one-third of the mail returns were reviewed to resolve questions dealing with multiple reports, respondent remarks, or no reported data. The remaining mail returns (about two-thirds) were batched and sent directly to data keying, along with some of the reviewed cases containing farm data. Keyed records were transmitted, formatted, and run through the complex edit and imputation system. About one-fifth of all forms edited were clerically reviewed for inconsistencies, omissions, or questionable values. While reviewing these forms, the edit review staff determined if the action taken by the computer edit and imputation system was correct. Edited records were tabulated to the county level. Each county was reviewed and, when necessary, individual records were corrected prior to publication.

Developing accurate processing methods is complicated by the complex structure of agriculture. Among the complexities are the many places to be included, the variety of arrangements under which farms are operated, the continuing changes in the relationship of operators to the farm operated, the expiration of leases and the initiation or renewal of leases, the problem of obtaining a complete list of agriculture operations, the difficulty of contacting and identifying some types of contractor/contractee relationships, the operator's absence from the farm during the data collection period, and the operator's opinion that part or all of the operation does not qualify and should not be included in the census. During data collection and processing of the census, all operations underwent a number of quality control checks to ensure as accurate an application as possible.

COVERAGE EVALUATION

Coverage Overview

The primary objectives of the census of agriculture are to accurately count U.S. farms, measure commodity production and sales, and measure demographic characteristics of farm operators. Since 1945, an evaluation of census coverage has been conducted for each census of agriculture to provide estimates of the completeness of census farm counts. These results help to identify problems and focus improvements for future censuses.

According to coverage evaluation results, the past five censuses of agriculture included an average of 92 percent of U.S. farms and 98 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of $1,000 or more in agricultural sales is complicated by the variety of arrangements under which farms are operated, the multiplicity of names used for an operation, the number of operations in which an operator participates, and the difficulty in classifying those operations just around the $1,000 sales range. In 1997, extensive efforts were made to compile as complete and accurate a mail list as possible, while reducing the duplication and number of nonfarm operations on the list.

The 1997 coverage evaluation program was designed to measure four components of error in the census farm counts. These components include:

1. Undercount due to farms Not on the Mail List (NML)

2. Overcount due to farms Duplicated or enumerated more than once (DUP)

3. Undercount due to farms Incorrectly Classified as nonfarms (ICU)

4. Overcount due to nonfarms Incorrectly Classified as farms (ICO).

The first component, mail list undercount, is by far the largest component of coverage error. Duplication, though occurring far less frequently, can involve larger farms and have a larger impact on acreage and sales estimates. The

last two components involve the misclassification of either farms or nonfarms. Misclassification can arise from errors in either reporting or processing the data.

Table G - Coverage Estimates - illustrates the effect of coverage adjustments on census farm counts by demographic characteristics, land in farms, and total value of sales. The coverage total is defined as the net difference between undercounted and overcounted farms. The adjusted census total is the sum of the census total and the net coverage total. The relative standard error is shown for the final census coverage adjusted number. This number will be similar to the relative standard error for the census number, except when the coverage total is negative or close to zero. The coverage adjustment percentage shows the coverage total as a percentage of total census adjusted farms for that characteristic.

The 1997 Census of Agriculture is the first census to include all four components of coverage error in table G. Previous publications only included the coverage error component due to farms not on the mail list (NML). Because of this, caution should be taken when comparing coverage estimates from table G with previous years. In addition, the coverage total is a negative number for some characteristics. This means that the number of farms overcounted for this characteristic was greater than the number of farms undercounted.

Area Frame Surveys to Measure Mail List Undercoverage

Names and addresses collected in the 1997 June Agricultural Survey and 1997 Fall Area Survey were used to estimate the undercount due to farms not on the census mail list (NML). These names were matched to the census mail list, and those that did not match were contacted by telephone or person. The enumerator verified whether the operation had reported in the census, and if not, a census of agriculture report form was completed.

The percentage of farms missed in the census varies considerably by State. In general, farms not on the mail list tended to be small in acreage, production, and sales of agricultural products. Farm operations could be missed for various reasons, including the possibility that the operation started after the mail list was developed, the operation may be so small as not to appear in any agriculture-related source lists, or the operation may have been falsely classified as a nonfarm prior to mailout.

Classification Error Survey to Measure Three Types of Coverage Error

The remaining three types of coverage error were measured by the Classification Error Survey. This survey was used to estimate the number of farms counted more than once (DUP), the number of farms misclassified as nonfarms (ICU), and the number of nonfarms misclassified as farms (ICO). A sample of census of agriculture respondents was selected for reinterview to determine their farm/nonfarm status and collect information to identify

potential duplication. The farm classification from this interview was compared with the classification on the census of agriculture report form. Any differences between these two classifications were reconciled to determine the true farm status. Each operation was reviewed for duplication by matching the additional information received from the reinterview (landlords, tenants, other names, etc.) to the list of census respondents. Potential duplication was reviewed and discrepancies reconciled.

In general, the classification error rate is higher for small farms close to the $1,000 agricultural sales requirement. This rate is also higher for farms with small acreage (less than 49 acres), higher for tenant farms than for full- or part-owner farms, and higher for farms where farming is not the operator's principal occupation.

Coverage Estimation

The adjusted census total, T, is estimated as the census farm count, C, plus undercount and minus overcount adjustments. Undercount includes 1) farms not on the mail list (NML) and 2) farms incorrectly classified as nonfarms (ICU). Overcount includes 3) nonfarms incorrectly classified as farms (ICO) and 4) farms duplicated in the census (DUP). Altogether, the adjusted census total is:

$$T = C + (NML + ICU) - (ICO + DUP).$$

In some States, estimates of misclassification of farms owned by operators having rare demographic characteristics were based on particularly small sample sizes. Where such small sample sizes occurred, a form of small area estimation was used in which data from similar States contributed to that State's estimates. In these cases, the coverage totals are weighted totals of the direct State estimate and the direct estimate from the region. Direct estimates were used to the largest extent possible, based on the amount of survey cases available for the particular item being estimated.

Table A. Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1997

Item	Percent of total	Item	Percent of total
Farms .... number..	7.2	Corn for grain or seed .... acres..	1.2
Land in farms .... acres..	2.9	Wheat for grain .... acres..	2.6
Estimated market value of land and buildings[1] .... $1,000..	3.7	Livestock and poultry inventory:	
Market value of agricultural products sold .... $1,000..	1.2	Cattle and calves .... number..	2.7
Harvested cropland .... acres..	2.7	Hogs and pigs .... number..	5.3
		Layers 20 weeks old and older .... number..	.2

[1]Data are based on a sample of farms.

Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1997

Farms	Relative standard error of estimate (percent)	Farms	Relative standard error of estimate (percent)
COMPLETE COUNT ITEM		SAMPLE COUNT ITEM	
Number of farms reporting:		Number of farms reporting:	
25	5.1	25	40.5
50	3.2	50	28.3
75	2.2	75	22.8
100	1.5	100	19.4
150	1.2	150	15.4
200	1.1	200	12.9
300	.9	300	9.9
500	.7	500	6.4
750	.5	750	3.6
1,000	.5	1,000	3.1
1,500	.4	1,500	2.5
2,000	.3	2,000	2.2

Table C. Reliability Estimates of State Totals for All Farms: 1997

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
FARMS AND LAND IN FARMS			**FARM PRODUCTION EXPENSES[1]**		
Farms ....number..	29 011	.4	Total farm production expenses ....farms..	29 002	.4
Land in farms ....acres..	15 179 710	.2	$1,000..	3 607 282	.2
Average size of farm ....acres..	523	.5	Average per farm ....dollars..	124 380	.5
			Livestock and poultry purchased ....farms..	6 743	2.2
			$1,000..	353 157	.4
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD			Feed for livestock and poultry ....farms..	13 102	1.3
			$1,000..	495 975	.4
			Commercially mixed formula feeds ....farms..	7 282	2.1
Total sales (see text) ....farms..	29 011	.4	$1,000..	249 934	.5
$1,000..	4 767 727	.1	Seeds, bulbs, plants, and trees ....farms..	9 656	1.5
Average per farm ....dollars..	164 342	.4	$1,000..	110 654	.6
Farms by value of sales:			Commercial fertilizer ....farms..	14 931	1.1
Less than $1,000 (see text) ....farms..	4 729	.6	$1,000..	231 396	.7
$1,000..	968	.8	Agricultural chemicals ....farms..	15 112	1.1
$1,000 to $2,499 ....farms..	3 969	.6	$1,000..	208 739	.6
$1,000..	6 542	.6	Petroleum products ....farms..	26 560	.6
$2,500 to $4,999 ....farms..	3 299	.6	$1,000..	124 646	.5
$1,000..	11 696	.6	Electricity ....farms..	20 850	.9
$5,000 to $9,999 ....farms..	2 954	.7	$1,000..	73 693	.6
$1,000..	20 767	.7	Hired farm labor ....farms..	13 598	1.2
$10,000 to $19,999 ....farms..	2 486	.8	$1,000..	771 003	.4
$1,000..	34 760	.8	Contract labor ....farms..	3 631	3.1
$20,000 to $24,999 ....farms..	756	1.1	$1,000..	44 164	1.9
$1,000..	16 589	1.1	Repair and maintenance ....farms..	23 501	.7
$25,000 to $39,999 ....farms..	1 330	1.0	$1,000..	229 971	.7
$1,000..	41 756	1.0	Customwork, machine hire, and rental of machinery and equipment ....farms..	8 798	1.7
$40,000 to $49,999 ....farms..	642	1.3	$1,000..	85 730	1.0
$1,000..	28 300	1.3	Interest ....farms..	11 538	1.4
$50,000 to $99,999 ....farms..	2 093	.9	$1,000..	214 518	.7
$1,000..	149 960	.9	Secured by real estate ....farms..	8 055	1.8
$100,000 to $249,999 ....farms..	3 066	.7	$1,000..	124 759	1.1
$1,000..	502 500	.6	Not secured by real estate ....farms..	6 677	1.9
$250,000 to $499,999 ....farms..	1 806	–	$1,000..	89 759	.7
$1,000..	629 966	–	Cash rent ....farms..	5 888	2.1
$500,000 or more ....farms..	1 881	–	$1,000..	124 823	1.2
$1,000..	3 323 925	–	Property taxes...................................farms..	27 085	.5
Sales by commodity or commodity group:			$1,000..	96 621	.8
Crops, including nursery and greenhouse crops.....farms..	16 241	.4	All other farm production expenses.................farms..	26 118	.6
$1,000..	3 251 291	.1	$1,000..	442 190	.4
Grains......................................farms..	4 596	.5			
$1,000..	673 641	.2			
Corn for grain ....farms..	488	.8	**NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)[1]**		
$1,000..	43 522	.4			
Wheat....................................farms..	4 079	.5			
$1,000..	507 072	.3	All farms...number..	29 009	.4
Soybeans..................................farms..	–	–	$1,000..	1 132 634	.6
$1,000..	–	–	Average per farm ....dollars..	39 044	.7
Sorghum for grain ....farms..	–	–	Farms with net gains[2] ....number..	13 510	1.1
$1,000..	–	–	$1,000..	1 254 760	.5
Barley....................................farms..	1 687	.6	Average net gain ....dollars..	92 876	1.2
$1,000..	66 461	.4	Farms with net losses ....number..	15 499	1.0
Oats ....farms..	182	1.9	$1,000..	122 126	2.1
$1,000..	1 438	2.5	Average net loss...............................dollars..	7 880	2.3
Other grains ....farms..	1 042	.6			
$1,000..	55 147	.4			
Cotton and cottonseed ....farms..	–	–	**GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME**		
$1,000..	–	–			
Tobacco ....farms..	–	–			
$1,000..	–	–	Government payments ....farms..	5 711	.5
Hay, silage, and field seeds ....farms..	6 208	.5	$1,000..	94 189	.5
$1,000..	252 478	.3	Other farm-related income[1] ....farms..	8 302	1.9
Vegetables, sweet corn, and melons ....farms..	1 506	.6	$1,000..	84 688	3.3
$1,000..	270 260	.2	Customwork and other agricultural services ....farms..	2 035	4.4
Fruits, nuts, and berries ....farms..	5 484	.5	$1,000..	29 640	6.5
$1,000..	1 240 242	.1	Gross cash rent or share payments ....farms..	2 360	4.1
Nursery and greenhouse crops ....farms..	1 909	.7	$1,000..	30 546	5.2
$1,000..	271 580	.2	Forest products, excluding Christmas trees and maple products ....farms..	1 010	6.5
Other crops ....farms..	711	.5	$1,000..	9 942	7.3
$1,000..	543 090	(L)	Other farm-related income sources.................farms..	4 408	2.4
Livestock, poultry, and their products ....farms..	14 149	.4	$1,000..	14 561	3.6
$1,000..	1 516 436	.1			
Poultry and poultry products...................farms..	873	.9			
$1,000..	170 322	.1	**COMMODITY CREDIT CORPORATION LOANS**		
Dairy products...............................farms..	958	.5			
$1,000..	622 266	.1			
Cattle and calves ....farms..	10 857	.4			
$1,000..	646 919	.1			
Hogs and pigs...............................farms..	818	1.0			
$1,000..	7 645	1.2			
Sheep, lambs, and wool ....farms..	1 104	.9			
$1,000..	3 559	1.1			
Other livestock and livestock products (see text).......................................farms..	3 021	.6			
$1,000..	65 725	.4			
Value of agricultural products sold directly to individuals for human consumption (see text) ....farms..	3 055	.6	Total ....farms..	743	.8
$1,000..	13 700	.7	$1,000..	40 475	.6

See footnotes at end of table.

Table C. **Reliability Estimates of State Totals for All Farms: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
LAND IN FARMS ACCORDING TO USE			**TENURE OF OPERATOR**		
			All operators .... farms..	29 011	.4
Total cropland .... farms..	24 656	.4	acres..	15 179 710	.2
acres..	7 913 709	.3	Full owners .... farms..	19 015	.4
Harvested cropland .... farms..	20 445	.4	acres..	5 118 187	.3
acres..	4 895 633	.2	Part owners .... farms..	7 186	.4
Farms by acres harvested:			acres..	7 598 442	.3
1 to 9 acres .... farms..	5 299	.5	Tenants .... farms..	2 810	.6
acres..	21 137	.6	acres..	2 463 081	.4
10 to 19 acres .... farms..	2 836	.6			
acres..	37 338	.6	**OWNED AND RENTED LAND**		
20 to 29 acres .... farms..	1 691	.8			
acres..	38 752	.8	Land owned........ farms..	26 322	.4
30 to 49 acres .... farms..	2 007	.7	acres..	9 792 902	.3
acres..	74 329	.7	Owned land in farms .... farms..	26 201	.4
			acres..	8 484 764	.3
50 to 99 acres .... farms..	2 276	.7	Land rented or leased from others .... farms..	10 077	.4
acres..	156 850	.7	acres..	6 814 899	.3
100 to 199 acres........ farms..	1 666	.7	landlords..	26 114	.4
acres..	228 141	.7	Rented or leased land in farms .... farms..	9 996	.4
200 to 499 acres .... farms..	1 857	.7	acres..	6 694 946	.3
acres..	586 664	.7	Land rented or leased to others .... farms..	3 199	.6
500 to 999 acres .... farms..	1 359	.7	acres..	1 428 091	.7
acres..	970 697	.8			
1,000 acres or more........ farms..	1 454	—	**OPERATOR CHARACTERISTICS**		
acres..	2 781 725	—			
			Operators by place of residence:		
Cropland:			On farm operated	22 618	.4
Pasture or grazing only .... farms..	9 321	.5	Not on farm operated	4 748	.6
acres..	503 514	.7	Not reported	1 645	.6
Other cropland .... farms..	6 152	.5	Operators by principal occupation:		
acres..	2 514 562	.5	Farming	15 465	.4
			Other	13 546	.5
Total woodland .... farms..	6 934	.5	Operators by days worked off farm:		
acres..	1 849 056	.4	Any	15 079	.5
Pastureland and rangeland other than cropland and			200 days or more	9 924	.5
woodland pastured........ farms..	6 886	.5	Operators by sex:		
acres..	4 944 327	.3	Male .... farms..	25 488	.4
Land in house lots, ponds, roads, wasteland, etc. .... farms..	16 825	.4	acres..	14 548 988	.2
acres..	472 618	.6	Female .... farms..	3 523	.6
Irrigated land .... farms..	13 131	.4	acres..	630 722	.9
acres..	1 705 025	.2	Average age of operator .... years..	54.2	.6
Acres irrigated:					
1 to 9 acres .... farms..	4 368	.6	**FARMS BY TYPE OF ORGANIZATION**		
acres..	17 075	.6			
10 to 49 acres .... farms..	4 180	.6	Individual or family (sole proprietorship)........ farms..	23 466	.4
acres..	97 900	.6	acres..	6 416 648	.4
50 to 99 acres .... farms..	1 528	.7	Partnership .... farms..	2 548	.6
acres..	105 812	.7	acres..	2 891 699	.3
100 to 199 acres .... farms..	1 160	.7	Corporation:		
acres..	159 030	.7	Family held .... farms..	2 521	.5
200 to 499 acres .... farms..	1 094	.6	acres..	3 181 311	.4
acres..	337 396	.6	More than 10 stockholders .... farms..	61	1.9
500 to 999 acres .... farms..	507	.3	10 or less stockholders .... farms..	2 460	.5
acres..	348 399	.3	Other than family held .... farms..	255	1.3
1,000 acres or more........ farms..	294	.1	acres..	235 405	.4
acres..	639 413	(L)	More than 10 stockholders .... farms..	38	1.7
			10 or less stockholders .... farms..	217	1.5
Harvested cropland irrigated .... farms..	11 346	.4	Other—cooperative, estate or trust, institutional, etc. .... farms..	221	1.7
acres..	1 592 825	.2	acres..	2 454 647	.1
Pasture and other land irrigated .... farms..	3 775	.5			
acres..	112 200	.7	**HIRED FARM LABOR**[1]		
Land under Conservation Reserve or Wetlands					
Reserve Programs .... farms..	2 431	.7	Hired workers by days worked:		
acres..	931 706	.8	150 days or more .... farms..	6 795	1.7
			workers..	39 893	.8
VALUE OF LAND AND BUILDINGS[1]			Less than 150 days .... farms..	12 606	1.3
			workers..	211 502	1.3
Estimated market value of land and buildings .... farms..	29 009	.4			
$1,000..	18 409 652	.7	**INJURIES AND DEATHS**		
Average per farm .... dollars..	634 619	.8			
Average per acre .... dollars..	1 192	1.2	Farm-related injuries:		
			Operator and family members .... farms..	293	1.4
VALUE OF MACHINERY AND EQUIPMENT[1]			number..	363	1.3
			Hired workers .... farms..	1 033	.5
Estimated market value of all machinery and			number..	2 638	.2
equipment .... farms..	29 008	.4	Farm-related deaths:		
$1,000..	2 021 640	.8	Operator and family members .... farms..	5	—
Average per farm .... dollars..	69 693	.9	number..	5	—
			Hired workers .... farms..	6	—
AGRICULTURAL CHEMICALS[1]			number..	7	—
Commercial fertilizer .... farms..	14 827	1.1			
acres on which used..	4 169 569	1.0			

See footnotes at end of table.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
FARMS BY SIZE			**LIVESTOCK**—Con.		
1 to 9 acres .... farms..	5 195	.5			
acres..	24 438	.6	Cattle and calves sold .... farms..	10 857	.4
10 to 49 acres .... farms..	9 727	.5	number..	1 086 270	.2
acres..	232 038	.5	$1,000..	646 919	.1
50 to 69 acres .... farms..	1 697	.7	Hogs and pigs inventory .... farms..	978	.9
acres..	98 239	.7	number..	38 030	1.5
70 to 99 acres .... farms..	1 867	.7	Hogs and pigs sold................................. farms..	818	1.0
acres..	152 395	.7	number..	72 045	1.1
100 to 139 acres.................... farms..	1 531	.7	$1,000..	7 645	1.2
acres..	177 021	.7			
140 to 179 acres.................... farms..	1 155	.8	Sheep and lambs of all ages inventory .... farms..	1 189	.9
acres..	181 245	.8	number..	52 298	1.3
180 to 219 acres.................... farms..	705	1.0	Sheep and lambs sold .... farms..	1 016	.9
acres..	138 864	1.0	number..	42 911	1.1
220 to 259 acres.................... farms..	599	1.0			
acres..	142 668	1.0	Horses and ponies inventory .... farms..	8 052	.5
260 to 499 acres.................... farms..	1 834	.7	number..	58 768	1.4
acres..	658 859	.7	Horses and ponies sold............................. farms..	2 075	.7
500 to 999 acres.................... farms..	1 618	.7	number..	7 545	1.3
acres..	1 144 266	.7			
1,000 to 1,999 acres .... farms..	1 436	.7	**POULTRY**		
acres..	2 025 005	.7			
2,000 acres or more................................ farms..	1 647	.4	Layers and pullets 13 weeks old and older inventory (see text) .... farms..	1 543	.8
acres..	10 204 672	.2	number..	5 797 721	.1
			Layers 20 weeks old and older .... farms..	1 504	.8
FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM			number..	4 787 360	.1
			Broilers and other meat-type chickens sold .... farms..	162	1.8
Oilseed and grain farming (1111) .... farms..	3 756	.6	number..	30 183 641	.1
acres..	7 450 758	.3			
Vegetable and melon farming (1112) .... farms..	951	.7	**SELECTED CROPS HARVESTED**		
acres..	712 093	.1			
Fruit and tree nut farming (1113) .... farms..	5 318	.5	Corn for grain or seed .... farms..	514	.8
acres..	520 607	.5	acres..	84 300	.4
Greenhouse, nursery, and floriculture production (1114).. farms..	1 562	.8	bushels..	16 163 861	.4
acres..	99 263	.9	Corn for silage or green chop .... farms..	633	.6
Other crop farming (1119) .... farms..	4 032	.5	acres..	53 417	.4
acres..	1 276 123	.6	tons, green..	1 340 460	.4
Beef cattle ranching and farming (112111) .... farms..	7 436	.5	Wheat for grain .... farms..	4 097	.5
acres..	4 419 340	.4	acres..	2 422 506	.3
Cattle feedlots (112112) .... farms..	656	1.1	bushels..	151 124 143	.3
acres..	235 622	.8	Barley for grain .... farms..	1 787	.6
Dairy cattle and milk production (11212) .... farms..	893	.5	acres..	436 299	.4
acres..	207 644	.4	bushels..	30 939 269	.4
Hog and pig farming (1122) .... farms..	299	1.6	Dry edible beans, excluding dry limas .... farms..	315	1.0
acres..	18 870	4.9	acres..	37 155	.6
Poultry and egg production (1123) .... farms..	287	1.4	cwt..	819 343	.6
acres..	17 577	4.0	Potatoes, excluding sweetpotatoes.................... farms..	415	.6
Sheep and goat farming (1124) .... farms..	588	1.2	acres..	155 074	.1
acres..	43 408	2.7	cwt..	87 208 607	.1
Animal aquaculture and other animal production (1125, 1129) .... farms..	3 233	.6	Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) .... farms..	10 108	.4
acres..	178 405	1.6	acres..	800 677	.4
			tons, dry..	3 013 551	.4
LIVESTOCK			Vegetables harvested for sale (see text) .... farms..	1 506	.6
			acres..	209 456	.2
Cattle and calves inventory.......................... farms..	11 721	.4	Land in orchards................................... farms..	5 700	.5
number..	1 204 265	.2	acres..	301 376	.2
Beef cows .... farms..	8 627	.5			
number..	304 473	.5			
Milk cows .... farms..	1 302	.6			
number..	247 191	.1			

[1]Data are based on a sample of farms.
[2]Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains.

USDA, National Agricultural Statistics Service

Table D. Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
FARMS AND LAND IN FARMS			**FARM PRODUCTION EXPENSES[1]**		
			Total farm production expenses .... farms..	14 060	.5
Farms .... number..	14 060	.4	$1,000..	3 507 731	.2
Land in farms .... acres..	12 843 701	.2	Average per farm .... dollars..	249 483	.5
Average size of farm .... acres..	913	.5	Livestock and poultry purchased ...... farms..	3 126	2.7
			$1,000..	345 436	.4
			Feed for livestock and poultry .... farms..	5 023	1.9
MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD			$1,000..	484 572	.4
			Commercially mixed formula feeds ...... farms..	2 951	2.7
			$1,000..	246 923	.5
Total sales (see text) .... farms..	14 060	.4	Seeds, bulbs, plants, and trees ...... farms..	7 632	1.4
$1,000..	4 727 755	.1	$1,000..	109 935	.6
Average per farm .... dollars..	336 256	.5	Commercial fertilizer .... farms..	10 719	1.0
Farms by value of sales:			$1,000..	228 667	.7
$10,000 to $19,999 .... farms..	2 486	.7	Agricultural chemicals .... farms..	10 498	1.0
$1,000..	34 760	.7	$1,000..	205 994	.6
$20,000 to $24,999 .... farms..	756	1.1	Petroleum products .... farms..	13 811	.5
$1,000..	16 589	1.1	$1,000..	118 384	.5
$25,000 to $39,999 .... farms..	1 330	1.0	Electricity .... farms..	12 095	.8
$1,000..	41 756	1.0	$1,000..	70 180	.6
$40,000 to $49,999 .... farms..	642	1.3	Hired farm labor .... farms..	10 074	1.0
$1,000..	28 300	1.3	$1,000..	767 970	.4
$50,000 to $99,999 .... farms..	2 093	.9	Contract labor .... farms..	2 385	3.3
$1,000..	149 960	.9	$1,000..	43 230	1.9
$100,000 to $249,999 .... farms..	3 066	.7	Repair and maintenance .... farms..	13 122	.6
$1,000..	502 500	.6	$1,000..	215 856	.7
$250,000 to $499,999 .... farms..	1 806	–	Customwork, machine hire, and rental of machinery and equipment .... farms..	6 341	1.7
$1,000..	629 966	–	$1,000..	83 987	1.1
$500,000 or more .... farms..	1 881	–	Interest .... farms..	8 500	1.3
$1,000..	3 323 925	–	$1,000..	204 895	.7
Sales by commodity or commodity group:			Secured by real estate .... farms..	5 696	1.9
Crops, including nursery and greenhouse crops..... farms..	11 279	.5	$1,000..	116 352	1.0
$1,000..	3 236 839	.1	Not secured by real estate .... farms..	5 539	1.9
Grains .... farms..	4 270	.5	$1,000..	88 543	.7
$1,000..	672 450	.2	Cash rent .... farms..	4 672	2.0
Corn for grain .... farms..	469	.8	$1,000..	123 584	1.2
$1,000..	43 461	.4	Property taxes..................... farms..	12 958	.7
Wheat .... farms..	3 881	.5	$1,000..	73 349	.9
$1,000..	506 339	.2	All other farm production expenses .... farms..	14 059	.5
Soybeans .... farms..	–	–	$1,000..	431 692	.4
$1,000..	–	–			
Sorghum for grain .... farms..	–	–	**NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)[1]**		
$1,000..	–	–			
Barley .... farms..	1 611	.6	All farms......................... number..	14 060	.5
$1,000..	66 245	.4	$1,000..	1 192 258	.6
Oats .... farms..	143	2.0	Average per farm .... dollars..	84 798	.7
$1,000..	1 375	2.5	Farms with net gains[2] .... number..	10 761	1.0
Other grains .... farms..	1 007	.6	$1,000..	1 249 598	.5
$1,000..	55 030	.4	Average net gain .... dollars..	116 123	1.1
Cotton and cottonseed .... farms..	–	–	Farms with net losses .... number..	3 299	2.9
$1,000..	–	–	$1,000..	57 341	3.5
Tobacco .... farms..	–	–	Average net loss.............. dollars..	17 381	4.5
$1,000..	–	–			
Hay, silage, and field seeds ...... farms..	3 457	.6			
$1,000..	246 028	.3	**GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME**		
Vegetables, sweet corn, and melons .... farms..	1 198	.6			
$1,000..	269 431	.2			
Fruits, nuts, and berries ...... farms..	4 281	.5	Government payments .... farms..	4 453	.5
$1,000..	1 236 616	.1	$1,000..	80 312	.4
Nursery and greenhouse crops .... farms..	1 184	.7	Other farm-related income[1] .... farms..	5 507	2.0
$1,000..	269 330	.2	$1,000..	71 643	3.6
Other crops .... farms..	659	.5	Customwork and other agricultural services .... farms..	1 331	5.0
$1,000..	542 984	(L)	$1,000..	26 900	7.0
Livestock, poultry, and their products .... farms..	5 658	.5	Gross cash rent or share payments .... farms..	1 299	5.1
$1,000..	1 490 916	.1	$1,000..	25 383	5.3
Poultry and poultry products..... farms..	239	1.3	Forest products, excluding Christmas trees and maple products .... farms..	348	9.6
$1,000..	169 929	.1	$1,000..	5 382	11.6
Dairy products................ farms..	938	.5	Other farm-related income sources............ farms..	3 704	2.4
$1,000..	622 247	.1	$1,000..	13 979	3.6
Cattle and calves .... farms..	4 835	.5			
$1,000..	628 856	.1	**COMMODITY CREDIT CORPORATION LOANS**		
Hogs and pigs................. farms..	256	1.6			
$1,000..	6 858	1.3			
Sheep, lambs, and wool .... farms..	293	1.4			
$1,000..	2 534	1.5			
Other livestock and livestock products (see text)............ farms..	923	.9	Total .... farms..	740	.8
$1,000..	60 493	.4	$1,000..	40 473	.6
Value of agricultural products sold directly to individuals for human consumption (see text) .... farms..	1 010	.9			
$1,000..	10 897	.9			

See footnotes at end of table.

Table D. Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997—Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
LAND IN FARMS ACCORDING TO USE			**FARMS BY TYPE OF ORGANIZATION**		
			Individual or family (sole proprietorship) .... farms..	9 599	.5
Total cropland .... farms..	13 254	.5	acres..	5 391 911	.5
acres..	7 290 843	.3	Partnership .... farms..	1 899	.6
Harvested cropland .... farms..	12 580	.5	acres..	2 752 736	.3
acres..	4 758 551	.2	Corporation:		
Cropland:			Family held .... farms..	2 252	.5
Pasture or grazing only .... farms..	3 334	.6	acres..	3 093 650	.4
acres..	343 041	.8	More than 10 stockholders .... farms..	51	1.5
Total woodland .... farms..	2 331	.6	10 or less stockholders .... farms..	2 201	.5
acres..	1 572 426	.3	Other than family held .... farms..	204	1.3
Pastureland and rangeland other than cropland and			acres..	229 519	.4
woodland pastured................... farms..	3 015	.6	More than 10 stockholders .... farms..	35	1.1
acres..	3 620 618	.3	10 or less stockholders .... farms..	169	1.6
Land in house lots, ponds, roads, wasteland, etc. .... farms..	7 780	.5	Other—cooperative, estate or trust, institutional, etc. .... farms..	106	2.1
acres..	359 814	.6	acres..	1 375 885	.2
Irrigated land .... farms..	8 436	.5			
acres..	1 645 052	.2	**HIRED FARM LABOR[1]**		
Harvested cropland irrigated .... farms..	8 044	.5	Hired workers by days worked:		
acres..	1 560 055	.2	150 days or more .... farms..	5 841	1.5
Pasture and other land irrigated .... farms..	1 545	.7	workers..	38 893	.8
acres..	84 997	.9	Less than 150 days .... farms..	9 109	1.2
Land under Conservation Reserve or Wetlands			workers..	201 899	1.4
Reserve Programs .... farms..	1 607	.6			
acres..	645 732	.7	**INJURIES AND DEATHS**		
			Farm-related injuries:		
VALUE OF LAND AND BUILDINGS[1]			Operator and family members .... farms..	167	1.6
			number..	222	1.4
Estimated market value of land and buildings .... farms..	14 060	.5	Hired workers .... farms..	991	.4
$1,000..	14 246 811	.7	number..	2 584	.2
Average per farm .... dollars..	1 013 287	.9	Farm-related deaths:		
Average per acre .... dollars..	1 103	1.3	Operator and family members .... farms..	3	—
			number..	(D)	(D)
VALUE OF MACHINERY AND EQUIPMENT[1]			Hired workers .... farms..	5	—
			number..	(D)	(D)
Estimated market value of all machinery and					
equipment .... farms..	14 059	.5	**FARMS BY SIZE**		
$1,000..	1 710 634	.9	1 to 9 acres	1 152	.8
Average per farm .... dollars..	121 675	1.0	10 to 49 acres	3 018	.7
			50 to 69 acres	798	1.0
AGRICULTURAL CHEMICALS[1]			70 to 99 acres	946	.9
			100 to 139 acres	892	.8
Commercial fertilizer .... farms..	10 662	1.0	140 to 179 acres	728	.9
acres on which used..	4 102 228	1.1	180 to 219 acres	473	1.0
			220 to 259 acres	435	1.1
TENURE OF OPERATOR			260 to 499 acres	1 402	.7
			500 to 999 acres	1 354	.7
All operators .... farms..	14 060	.4	1,000 to 1,999 acres	1 286	.7
acres..	12 843 701	.2	2,000 acres or more..........................	1 576	.4
Full owners .... farms..	6 916	.5			
acres..	3 253 070	.3	**FARMS BY NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM**		
Part owners .... farms..	5 072	.5			
acres..	7 216 253	.3	Oilseed and grain farming (1111)	2 941	.5
Tenants .... farms..	2 072	.7	Vegetable and melon farming (1112)	749	.8
acres..	2 374 378	.4	Fruit and tree nut farming (1113)	3 896	.5
			Greenhouse, nursery, and floriculture production		
OWNED AND RENTED LAND			(1114)	930	.8
			Other crop farming (1119)	1 862	.7
Land owned............................ farms..	12 078	.5	Beef cattle ranching and farming (112111)	1 996	.7
acres..	7 291 293	.3	Cattle feedlots (112112)	106	2.2
Owned land in farms .... farms..	11 988	.5	Dairy cattle and milk production (11212)	889	.5
acres..	6 435 235	.3	Hog and pig farming (1122)	63	3.2
			Poultry and egg production (1123)	116	1.4
Land rented or leased from others .... farms..	7 181	.5	Sheep and goat farming (1124)	51	3.8
acres..	6 503 750	.3	Animal aquaculture and other animal production (1125,		
landlords..	21 501	.4	1129)	461	1.3
Rented or leased land in farms .... farms..	7 144	.5			
acres..	6 408 466	.3	**LIVESTOCK**		
Land rented or leased to others .... farms..	1 736	.7	Cattle and calves inventory.................. farms..	4 808	.5
acres..	951 342	.7	number..	1 083 706	.2
			Beef cows .... farms..	3 287	.6
OPERATOR CHARACTERISTICS			number..	250 686	.5
			Milk cows .... farms..	1 018	.5
Operators by place of residence:			number..	246 610	.1
On farm operated	10 185	.5	Cattle and calves sold .... farms..	4 835	.5
Not on farm operated	2 993	.6	number..	1 039 495	.2
Not reported	882	.6	$1,000..	628 856	.1
Operators by principal occupation:			Hogs and pigs inventory .... farms..	295	1.4
Farming	10 687	.4	number..	32 588	1.7
Other	3 373	.6	Hogs and pigs sold.......................... farms..	256	1.6
Operators by days worked off farm:			number..	64 502	1.2
Any	5 198	.6	$1,000..	6 858	1.3
200 days or more	2 824	.7	Sheep and lambs of all ages inventory.......... farms..	309	1.4
Operators by sex:			number..	33 019	1.8
Male	13 043	.4	Sheep and lambs sold .... farms..	284	1.5
Female	1 017	.9	number..	28 507	1.5
Average age of operator .... years..	53.0	.6	Horses and ponies inventory .... farms..	2 496	.6
			number..	20 701	1.0
			Horses and ponies sold.................... farms..	626	1.1
			number..	4 520	2.0

See footnotes at end of table.

Table D. Reliability Estimates of State Totals for Farms With Sales of $10,000 or More: 1997—Con.

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
POULTRY			**SELECTED CROPS HARVESTED**—Con.		
Layers and pullets 13 weeks old and older inventory					
(see text) .... farms..	344	1.4			
number..	5 773 172	.1	Barley for grain .... farms..	1 695	.6
Layers 20 weeks old and older .... farms..	335	1.4	acres..	433 872	.4
number..	4 766 714	.1	bushels..	30 816 241	.4
Broilers and other meat-type chickens sold .... farms..	88	1.5	Dry edible beans, excluding dry limas .... farms..	302	1.0
number..	30 173 811	.1	acres..	37 057	.7
			cwt..	817 964	.6
SELECTED CROPS HARVESTED			Potatoes, excluding sweetpotatoes.................... farms..	375	.5
			acres..	155 056	.1
Corn for grain or seed .... farms..	492	.8	cwt..	87 202 945	.1
acres..	84 060	.4	Hay—alfalfa, other tame, small grain, wild, grass		
bushels..	16 134 584	.3	silage, green chop, etc. (see text) .... farms..	4 916	.5
Corn for silage or green chop........................ farms..	606	.6	acres..	689 473	.4
acres..	53 120	.4	tons, dry..	2 821 123	.4
tons, green..	1 335 796	.4	Vegetables harvested for sale (see text) .... farms..	1 198	.6
Wheat for grain .... farms..	3 891	.5	acres..	208 859	.3
acres..	2 416 282	.3	Land in orchards................................... farms..	4 015	.5
bushels..	150 866 650	.3	acres..	288 740	.2

[1]Data are based on a sample of farms.
[2]Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains.

Table E. Reliability Estimates of Percent Change in State Totals: 1992 to 1997

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of $10,000 or more	
	Percent change from 1992 to 1997	Standard error of estimate	Percent change from 1992 to 1997	Standard error of estimate
Farms .... number..	−4.1	.8	−4.5	.7
Land in farms .... acres..	−3.5	.3	−4.6	.3
Average size of farm .... acres..	.6	.8	−.2	.8
Estimated market value of land and buildings[1]:				
Average per farm .... dollars..	35.5	1.8	35.1	1.9
Average per acre .... dollars..	33.6	2.2	35.5	2.3
Estimated market value of all machinery and equipment[1]:				
Average per farm .... dollars..	14.2	1.6	13.6	1.7
Farms by size:				
1 to 9 acres	−3.9	1.1	11.2	1.7
10 to 49 acres	−3.8	1.0	−3.4	1.2
50 to 179 acres	−4.4	.7	−6.2	.7
180 to 499 acres	−5.9	.8	−6.9	.8
500 to 999 acres	−4.8	1.1	−9.0	1.0
1,000 to 1,999 acres	−1.7	.7	−4.4	.7
2,000 acres or more	−3.6	.4	−4.8	.4
Total cropland... farms..	−4.3	.7	−4.5	.7
acres..	−1.1	.3	−2.7	.3
Harvested cropland .... farms..	−3.9	.7	−3.4	.7
acres..	3.4	.3	3.8	.3
Irrigated land .... farms..	−6.7	.8	−5.1	.8
acres..	3.9	.4	4.2	.4
Market value of agricultural products sold .... $1,000..	24.8	.2	25.1	.2
Average per farm .... dollars..	30.2	1.1	30.9	1.0
Crops, including nursery and greenhouse crops .... $1,000..	32.6	.3	32.8	.3
Livestock, poultry, and their products.................................... $1,000..	10.7	.1	11.1	.1
Farms by value of sales:				
Less than $2,500	−3.1	.9	(X)	(X)
$2,500 to $4,999	−5.4	1.2	(X)	(X)
$5,000 to $9,999	−4.0	1.2	(X)	(X)
$10,000 to $24,999	−2.6	1.1	−2.6	1.1
$25,000 to $49,999	−14.4	1.1	−14.4	1.1
$50,000 to $99,999	−13.7	1.2	−13.7	1.2
$100,000 to $249,999	−12.2	.8	−12.2	.8
$250,000 to $499,999	3.1	−	3.1	−
$500,000 or more	32.8	−	32.8	−
Total farm production expenses[1] .... $1,000..	15.5	.5	16.0	.6
Average per farm .... dollars..	20.5	1.0	21.6	1.1
Net cash return from agricultural sales for the farm unit (see text)[1] .... farms..	−4.1	.8	−4.6	.8
$1,000..	64.4	1.8	60.0	1.6
Average per farm .... dollars..	71.5	2.3	67.8	2.2
Operators by principal occupation:				
Farming	−6.2	.7	−6.7	.7
Other	−1.6	1.0	3.5	1.2
Operators by days worked off farm:				
Any..	−3.9	.9	−2.1	1.1
200 days or more	−5.0	1.0	−.1	1.2
Livestock and poultry:				
Cattle and calves inventory .... farms..	−13.1	.7	−13.6	.7
number..	−5.2	.3	−5.1	.3
Beef cows .... farms..	−9.7	.8	−7.1	.9
number..	−2.0	.7	−1.8	.7
Milk cows... farms..	−29.3	.6	−26.8	.6
number..	1.8	.2	2.0	.2
Cattle and calves sold... farms..	−11.4	.7	−13.2	.7
number..	7.1	.3	7.6	.3
Hogs and pigs inventory .... farms..	−30.5	1.0	−37.1	1.3
number..	−32.3	1.4	−31.1	1.6
Hogs and pigs sold .... farms..	−28.9	1.1	−38.6	1.3
number..	−23.1	1.5	−22.4	1.6
Sheep and lambs inventory .... farms..	−12.8	1.3	−14.9	1.8
number..	−17.7	1.7	−19.6	2.3
Layers and pullets 13 weeks old and older inventory (see text) .... farms..	−18.2	1.1	−13.8	1.7
number..	5.4	.2	5.8	.2
Broilers and other meat-type chickens sold .... farms..	−1.2	2.6	−9.3	2.0
number..	−10.5	.2	−10.5	.2
Selected crops harvested:				
Corn for grain or seed... farms..	−10.0	1.2	−10.1	1.2
acres..	−10.9	.6	−11.0	.6
bushels..	−4.1	.6	−4.1	.6
Wheat for grain .... farms..	−18.6	.6	−16.9	.6
acres..	−2.9	.3	−2.7	.3
bushels..	25.1	.4	25.2	.4
Barley for grain... farms..	−26.4	.6	−25.5	.6
acres..	3.3	.5	3.6	.5
bushels..	58.1	.8	58.6	.8
Potatoes, excluding sweetpotatoes .... farms..	−3.7	1.0	−5.3	.8
acres..	20.1	.1	20.4	.1
cwt..	39.9	.1	39.9	.1
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) .... farms..	−2.8	.8	−1.5	.8
acres..	8.1	.7	11.2	.7
tons, dry..	12.9	.7	13.9	.7
Vegetables harvested for sale (see text) .... farms..	−6.2	.9	−2.8	1.0
acres..	21.7	.5	22.0	.5
Land in orchards .... farms..	−8.4	.8	−2.5	.9
acres..	17.6	.4	18.1	.4

[1]Data are based on a sample of farms.

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[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm[1]		Estimated market value of all machinery and equipment[1]	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**29 011**	**.4**	**15 179 710**	**.2**	**523**	**.5**	**634 619**	**.8**	**2 021 640**	**.8**
Adams	628	.6	1 096 447	.5	1 746	.8	1 307 300	2.7	103 438	6.0
Asotin	140	.5	304 471	1.2	2 175	1.3	1 002 812	5.0	11 326	10.1
Benton	1 078	.3	611 903	.5	568	.6	1 122 202	1.1	102 567	1.3
Chelan	1 113	.4	123 731	1.6	111	1.6	414 983	5.8	57 657	4.4
Clallam	292	.3	21 034	1.5	72	1.6	399 516	10.1	7 647	10.8
Clark	1 175	.3	72 841	1.3	62	1.4	324 988	6.2	28 418	4.7
Columbia	198	.5	310 189	.9	1 567	1.0	774 904	3.9	26 627	5.4
Cowlitz	349	.4	31 103	1.5	89	1.5	364 799	6.0	11 952	10.7
Douglas	853	.3	906 433	.6	1 063	.7	777 776	3.7	73 876	4.7
Ferry	179	.8	809 816	.4	4 524	.8	1 835 392	2.9	6 718	6.6
Franklin	848	.5	563 716	.8	665	.9	969 359	2.1	110 214	3.5
Garfield	182	.5	325 220	.7	1 787	.9	974 315	2.5	28 566	5.3
Grant	1 699	.4	1 095 099	.5	645	.7	1 001 298	1.7	252 468	1.5
Grays Harbor	389	.5	42 350	1.6	109	1.7	261 918	9.3	12 562	9.2
Island	261	.4	15 900	1.5	61	1.5	393 988	7.6	6 616	5.5
Jefferson	144	.4	13 091	3.0	91	3.0	269 645	6.4	2 674	6.6
King	1 091	.5	41 653	1.1	38	1.2	378 684	5.0	38 733	6.5
Kitsap	359	.4	19 129	1.0	53	1.1	266 736	8.2	9 465	13.1
Kittitas	757	.4	177 815	1.5	235	1.6	539 603	3.8	46 119	3.7
Klickitat	530	.3	588 732	.6	1 111	.7	626 995	5.8	24 963	6.7
Lewis	1 117	.4	117 677	1.0	105	1.1	387 139	6.6	36 375	5.7
Lincoln	707	.5	1 375 869	.5	1 946	.7	1 078 654	3.3	98 543	5.7
Mason	211	.6	19 986	2.1	95	2.2	302 155	6.3	3 506	5.9
Okanogan	1 270	.6	1 178 850	.7	928	.9	855 328	4.0	66 621	4.6
Pacific	253	.4	40 228	2.2	159	2.2	367 825	4.9	8 710	6.6
Pend Oreille	225	.5	63 123	1.7	281	1.8	348 083	7.4	7 802	9.0
Pierce	989	.4	50 868	1.1	51	1.2	336 152	3.8	30 003	5.1
San Juan	174	.5	16 887	4.1	97	4.2	486 783	7.4	2 674	8.8
Skagit	714	.3	93 495	.6	131	.7	609 685	4.5	51 022	5.1
Skamania	63	.5	4 220	1.9	67	1.9	334 096	3.7	1 771	3.0
Snohomish	1 139	.4	60 588	1.0	53	1.1	387 090	4.8	38 001	4.3
Spokane	1 643	.4	589 843	.7	359	.8	468 834	3.6	85 692	5.3
Stevens	989	.5	525 121	1.0	531	1.1	510 064	5.4	36 433	6.9
Thurston	832	.4	56 300	1.3	68	1.3	381 045	8.3	36 462	3.3
Wahkiakum	108	.3	13 379	3.0	124	3.0	348 263	9.6	3 323	9.8
Walla Walla	716	.3	714 777	.5	998	.6	890 555	4.1	77 224	4.5
Whatcom	1 228	.3	103 600	.5	84	.6	448 689	4.5	68 381	3.3
Whitman	1 003	.6	1 301 265	.5	1 297	.8	1 119 766	3.2	161 977	3.1
Yakima	3 365	.4	1 682 961	.2	500	.4	605 297	1.4	244 516	1.5

Geographic area	Average market value of all machinery and equipment per farm[1]		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses[1]			
							Total farm production expenses			
							Farms		Value	
	Value (dollars)	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**69 693**	**.9**	**4 767 727**	**.1**	**164 342**	**.4**	**29 002**	**.4**	**3 607 282**	**.2**
Adams	164 710	6.1	201 873	.2	321 454	.6	628	.6	142 351	1.1
Asotin	80 899	10.3	9 743	1.2	69 593	1.3	140	1.9	8 642	2.8
Benton	95 057	1.4	300 530	.1	278 785	.3	1 079	.5	230 754	.5
Chelan	51 897	4.4	146 403	.4	131 539	.6	1 112	.6	96 785	1.5
Clallam	26 187	10.8	6 011	1.7	20 584	1.7	292	1.0	6 373	14.9
Clark	24 206	4.7	43 083	.5	36 667	.6	1 174	.5	36 207	2.0
Columbia	134 479	5.5	24 477	.7	123 619	.9	198	1.2	19 432	2.0
Cowlitz	34 345	10.7	15 919	.6	45 612	.7	348	.8	13 520	1.9
Douglas	86 506	4.8	117 623	.3	137 894	.4	854	.5	83 719	1.6
Ferry	37 532	6.8	5 013	2.5	28 007	2.6	179	1.8	3 861	4.0
Franklin	129 816	3.5	332 935	.2	392 612	.5	849	.7	236 457	.6
Garfield	156 957	5.4	24 685	.8	135 633	.9	182	1.4	20 199	2.1
Grant	148 510	1.6	804 252	.1	473 368	.5	1 700	.5	599 607	.3
Grays Harbor	32 377	9.3	15 029	.7	38 635	.9	388	.9	11 904	4.7
Island	25 350	5.6	10 538	.8	40 376	.9	261	1.1	9 128	2.7
Jefferson	18 568	6.9	4 321	2.1	30 007	2.1	144	2.0	3 021	2.8
King	35 503	6.6	93 791	.3	85 968	.6	1 091	.7	79 834	2.2
Kitsap	26 365	13.2	12 233	.8	34 074	.9	359	.8	10 740	2.6
Kittitas	60 923	3.7	79 634	.4	105 196	.5	757	.7	63 172	1.4
Klickitat	46 923	6.8	33 231	.4	62 701	.5	532	.7	27 669	1.9
Lewis	32 594	5.7	82 778	.3	74 108	.5	1 116	.6	64 558	1.9
Lincoln	139 185	5.7	107 808	.4	152 486	.6	708	.6	72 939	1.9
Mason	16 539	6.1	13 365	.9	63 340	1.0	212	1.6	10 865	1.4
Okanogan	52 457	4.6	133 521	.4	105 134	.7	1 270	.7	101 711	1.4
Pacific	34 562	6.6	16 964	.9	67 052	1.0	252	1.1	12 224	3.6
Pend Oreille	34 828	9.1	2 879	2.1	12 794	2.2	224	1.1	2 973	8.7
Pierce	30 336	5.2	69 835	.2	70 612	.5	989	.6	57 728	1.1
San Juan	15 367	8.9	2 653	2.1	15 246	2.2	174	1.2	2 356	5.6
Skagit	71 459	5.1	171 690	.1	240 463	.4	714	.5	129 701	.6

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Average market value of all machinery and equipment per farm[1]		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses[1]			
							Total farm production expenses			
							Farms		Value	
	Value (dollars)	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Skamania	28 117	4.1	1 532	1.2	24 316	1.3	63	2.8	1 501	1.0
Snohomish	33 393	4.3	112 881	.2	99 105	.5	1 138	.6	98 794	.9
Spokane	52 156	5.3	78 704	.5	47 903	.6	1 643	.5	61 721	2.1
Stevens	36 838	6.9	22 815	1.2	23 069	1.3	989	.6	20 085	4.1
Thurston	43 877	3.4	120 712	.1	145 086	.4	831	.6	95 086	.4
Wahkiakum	30 767	10.0	2 715	2.7	25 135	2.7	108	2.0	2 770	14.2
Walla Walla	107 854	4.5	256 930	.1	358 841	.3	709	1.0	202 881	1.0
Whatcom	55 730	3.3	241 643	.1	196 778	.3	1 227	.4	194 258	.8
Whitman	161 492	3.2	173 483	.4	172 964	.7	1 003	.7	128 546	1.5
Yakima	72 664	1.6	873 495	.1	259 582	.4	3 365	.4	643 211	.3

Farm production expenses[1]—Con.

Geographic area	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**6 743**	**2.2**	**353 157**	**.4**	**13 102**	**1.3**	**495 975**	**.4**	**9 656**	**1.5**	**110 654**	**.6**
Adams................	91	17.4	888	3.0	181	14.0	5 024	3.0	322	7.6	9 140	1.4
Asotin	55	11.0	279	10.4	84	7.3	701	13.5	58	6.8	344	7.8
Benton................	297	11.1	1 212	11.6	518	6.4	3 953	8.8	274	8.2	17 399	1.0
Chelan................	39	32.7	228	30.9	114	20.4	310	21.6	341	8.7	1 155	9.7
Clallam	72	24.3	326	42.9	187	10.4	1 263	7.7	47	30.8	107	34.3
Clark	325	11.1	3 100	6.1	650	5.8	10 058	2.8	230	11.3	955	6.1
Columbia	37	15.9	343	12.6	74	9.9	355	8.4	119	5.4	1 094	3.7
Cowlitz	72	20.5	908	14.8	230	8.2	4 798	.8	58	21.9	225	2.7
Douglas..............	92	20.0	1 224	8.5	175	15.1	2 001	11.7	305	9.1	1 943	5.9
Ferry	62	10.1	357	15.0	113	5.6	1 206	4.7	48	12.5	65	13.8
Franklin	121	14.2	10 937	1.4	222	10.6	16 177	2.8	479	5.4	10 206	1.1
Garfield	51	12.2	256	5.9	90	7.3	670	5.9	118	4.9	1 079	4.1
Grant	337	9.9	142 584	.5	517	6.8	52 117	.4	831	4.0	17 088	1.3
Grays Harbor	104	20.0	710	30.7	209	11.4	3 280	1.9	60	26.0	183	13.8
Island................	114	13.9	373	13.4	190	6.8	2 648	4.0	79	18.2	56	16.6
Jefferson..............	43	13.9	164	11.5	91	7.2	1 012	2.0	22	21.7	15	20.2
King	310	10.1	4 222	5.7	637	5.3	23 277	1.0	221	10.8	3 658	2.5
Kitsap	93	21.6	880	8.3	210	10.9	(D)	(D)	71	23.0	35	12.4
Kittitas	177	13.0	12 587	1.8	392	7.5	7 045	3.5	181	12.1	560	12.8
Klickitat	172	13.5	1 004	11.5	240	10.1	2 752	5.5	165	12.5	668	8.4
Lewis................	319	11.0	6 064	8.6	717	5.2	28 469	2.1	179	13.3	523	10.6
Lincoln................	153	14.5	864	17.0	275	9.2	1 709	12.7	433	4.7	3 938	3.9
Mason	34	18.3	(D)	(D)	92	9.4	1 768	1.5	49	13.3	86	11.1
Okanogan..............	290	10.6	2 070	11.8	502	7.0	3 769	9.4	405	8.6	1 301	8.1
Pacific	35	26.8	819	2.4	99	11.0	1 991	3.0	33	25.8	106	50.4
Pend Oreille	60	18.6	326	34.8	140	9.0	298	14.3	27	30.4	14	39.6
Pierce	279	10.7	3 694	2.8	599	5.0	16 672	1.1	171	11.5	1 460	1.9
San Juan	50	14.4	479	8.0	123	5.6	262	10.8	32	18.7	14	23.7
Skagit	206	11.0	7 407	5.2	419	6.4	33 204	1.1	300	7.6	5 960	2.3
Skamania	15	6.8	28	12.9	29	4.7	36	7.6	10	4.9	14	3.6
Snohomish	283	11.8	5 962	3.4	712	4.6	32 886	.8	275	9.2	2 649	3.1
Spokane	459	9.3	3 498	13.3	731	6.3	7 617	8.3	630	5.9	2 594	4.7
Stevens..............	293	11.2	1 888	20.9	592	5.8	3 477	12.6	355	8.7	655	13.1
Thurston	243	13.6	6 430	1.1	573	5.1	32 883	.5	116	19.2	287	8.0
Wahkiakum	43	15.4	541	30.7	79	7.9	856	27.7	–	–	–	–
Walla Walla	114	17.0	(D)	(D)	223	12.1	(D)	(D)	416	5.5	6 361	2.9
Whatcom	453	7.4	19 167	1.4	745	5.3	73 303	1.3	375	7.0	1 832	7.7
Whitman	163	14.7	1 909	4.1	354	7.6	3 283	10.7	702	3.5	7 808	3.0
Yakima	587	7.2	61 157	.9	974	4.7	91 196	.3	1 119	4.4	9 077	2.7

Farm production expenses[1]—Con.

Geographic area	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**14 931**	**1.1**	**231 396**	**.7**	**15 112**	**1.1**	**208 739**	**.6**	**26 560**	**.6**	**124 646**	**.5**
Adams................	471	3.7	20 248	2.4	448	4.7	15 109	2.8	535	3.8	7 741	2.5
Asotin	82	5.5	1 145	9.0	81	5.6	663	6.9	119	3.8	662	5.3
Benton................	600	5.7	20 923	.8	546	6.0	22 903	.5	958	2.4	7 206	.9
Chelan................	834	3.4	2 059	5.7	923	3.1	8 745	3.8	1 042	1.5	2 562	3.0

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Farm production expenses[1]—Con.

Geographic area	Commercial fertilizer — Farms — Number	Commercial fertilizer — Farms — Relative standard error of estimate (percent)	Commercial fertilizer — Value — Total ($1,000)	Commercial fertilizer — Value — Relative standard error of estimate (percent)	Agricultural chemicals — Farms — Number	Agricultural chemicals — Farms — Relative standard error of estimate (percent)	Agricultural chemicals — Value — Total ($1,000)	Agricultural chemicals — Value — Relative standard error of estimate (percent)	Petroleum products — Farms — Number	Petroleum products — Farms — Relative standard error of estimate (percent)	Petroleum products — Value — Total ($1,000)	Petroleum products — Value — Relative standard error of estimate (percent)
Clallam	95	16.7	190	7.2	58	27.3	65	10.6	250	4.7	248	11.0
Clark	378	9.7	471	9.8	500	7.6	720	10.1	1 075	2.1	1 254	4.7
Columbia	149	4.4	3 314	3.5	156	4.2	2 358	3.8	187	2.1	1 230	2.8
Cowlitz	69	19.6	351	2.1	133	14.2	426	2.0	319	3.6	428	4.2
Douglas	672	4.1	5 461	6.5	696	3.7	7 172	3.9	781	2.4	3 679	4.1
Ferry	56	11.8	103	4.8	64	10.5	44	20.6	177	1.9	314	5.9
Franklin	679	3.0	19 040	1.5	640	4.1	17 662	1.1	778	2.6	8 434	1.7
Garfield	145	3.6	3 307	2.9	152	3.1	2 265	2.8	180	1.5	1 538	2.9
Grant	1 245	2.5	43 434	1.4	1 200	2.7	34 641	.8	1 598	1.3	16 255	1.0
Grays Harbor	159	14.3	474	9.0	145	15.7	289	28.8	344	4.4	427	8.9
Island	85	16.9	177	9.9	51	20.3	86	22.7	250	2.8	354	6.3
Jefferson	47	13.4	54	7.5	27	16.9	13	19.0	128	3.6	137	6.1
King	258	10.9	587	7.0	270	10.3	323	10.8	987	2.3	2 456	7.5
Kitsap	85	22.3	31	12.8	91	19.9	30	15.2	312	5.2	266	10.7
Kittitas	429	5.8	4 454	5.3	349	7.6	1 160	5.4	672	3.3	2 001	5.5
Klickitat	250	8.7	1 853	5.4	160	12.5	1 578	6.3	453	4.0	1 252	4.0
Lewis	326	10.3	809	8.9	384	9.2	570	5.4	1 033	1.7	1 741	4.2
Lincoln	520	3.7	14 317	3.7	494	4.8	5 508	4.9	641	2.7	5 359	2.9
Mason	74	9.6	124	4.9	60	10.5	47	7.8	186	3.6	449	3.2
Okanogan	653	4.8	3 272	8.0	780	4.9	8 214	4.2	1 192	2.0	3 415	2.9
Pacific	121	9.8	198	13.0	140	7.9	342	7.3	244	2.0	428	5.9
Pend Oreille	97	12.0	284	26.7	82	14.4	33	21.8	221	1.1	230	8.0
Pierce	301	9.7	682	2.2	355	8.7	538	2.6	895	2.3	2 092	2.4
San Juan	37	18.2	34	28.6	26	21.1	3	24.0	153	3.0	118	17.2
Skagit	307	8.0	6 156	3.0	255	7.6	3 765	2.1	674	2.0	4 093	1.0
Skamania	29	3.3	49	1.3	19	3.1	161	.1	60	2.8	51	1.3
Snohomish	346	9.3	1 300	12.0	303	9.7	633	10.2	1 014	2.5	3 528	1.5
Spokane	738	6.0	6 814	5.1	720	6.2	4 299	6.0	1 495	2.0	3 762	4.1
Stevens	372	8.3	910	17.5	311	10.5	303	22.0	899	2.4	1 344	6.0
Thurston	215	14.4	507	6.5	215	13.8	375	9.9	741	3.3	1 758	3.4
Wahkiakum	7	47.1	1	59.4	26	23.0	9	26.9	96	4.3	84	10.4
Walla Walla	535	4.0	20 974	2.2	489	5.1	13 211	2.7	640	2.7	5 251	2.9
Whatcom	621	5.4	3 208	6.2	502	6.3	2 619	5.5	1 146	1.8	3 952	2.0
Whitman	765	2.8	24 793	2.3	806	3.2	16 863	3.0	955	1.7	8 552	2.2
Yakima	2 079	2.6	19 285	2.0	2 455	1.8	34 994	1.0	3 130	1.1	19 995	1.2

Farm production expenses[1]—Con.

Geographic area	Electricity — Farms — Number	Electricity — Farms — Relative standard error of estimate (percent)	Electricity — Value — Total ($1,000)	Electricity — Value — Relative standard error of estimate (percent)	Hired farm labor — Farms — Number	Hired farm labor — Farms — Relative standard error of estimate (percent)	Hired farm labor — Value — Total ($1,000)	Hired farm labor — Value — Relative standard error of estimate (percent)	Contract labor — Farms — Number	Contract labor — Farms — Relative standard error of estimate (percent)	Contract labor — Value — Total ($1,000)	Contract labor — Value — Relative standard error of estimate (percent)
Washington	**20 850**	**.9**	**73 693**	**.6**	**13 598**	**1.2**	**771 003**	**.4**	**3 631**	**3.1**	**44 164**	**1.9**
Adams	489	5.3	5 347	3.3	348	7.5	16 543	2.9	110	18.5	1 455	2.1
Asotin	108	4.1	127	6.2	54	8.5	767	7.6	13	29.1	41	22.0
Benton	890	3.0	8 353	1.2	446	5.9	60 099	.8	214	12.2	3 691	11.3
Chelan	900	3.3	1 501	3.6	814	3.0	40 972	2.1	207	13.8	1 808	5.5
Clallam	208	6.7	121	6.4	110	16.9	1 440	26.0	26	44.0	57	24.1
Clark	693	5.4	700	4.6	376	9.4	6 171	3.7	115	19.2	351	10.1
Columbia	152	4.6	246	6.8	86	7.7	2 764	4.7	29	20.3	215	30.3
Cowlitz	147	12.1	207	3.7	90	16.3	2 159	1.0	49	23.3	153	15.1
Douglas	627	4.2	1 107	4.8	522	5.7	25 832	2.9	143	16.5	1 338	21.7
Ferry	124	5.4	86	9.9	49	13.0	146	9.6	14	24.9	27	14.9
Franklin	756	2.7	7 361	1.8	573	4.6	56 187	1.0	129	14.1	2 975	2.4
Garfield	141	4.3	215	3.9	104	6.0	1 613	4.4	13	18.8	45	25.0
Grant	1 482	2.0	11 433	1.1	1 099	3.2	101 535	.9	304	8.4	6 864	4.6
Grays Harbor	199	11.0	226	17.1	157	14.8	1 773	16.1	21	48.2	91	81.0
Island	182	8.3	177	4.7	106	12.4	1 978	4.6	41	28.5	35	40.7
Jefferson	78	8.4	57	8.1	48	11.9	371	9.8	17	23.3	31	31.6
King	689	4.8	1 539	5.0	423	7.4	18 450	4.4	144	16.8	580	9.5
Kitsap	199	11.7	192	8.9	103	19.0	1 435	10.5	33	39.4	(D)	(D)
Kittitas	454	6.5	726	4.7	272	8.0	13 047	3.3	64	25.2	411	34.4
Klickitat	355	6.6	660	5.1	137	11.2	6 667	2.2	99	19.7	197	20.0
Lewis	670	5.2	791	3.5	417	7.8	7 356	3.8	110	17.1	378	8.7
Lincoln	600	3.6	2 409	7.3	403	5.4	8 064	5.9	57	18.6	301	19.2
Mason	125	7.2	163	3.0	63	10.6	2 389	2.4	17	26.6	(D)	(D)
Okanogan	865	4.3	2 191	2.8	714	4.9	40 164	1.4	167	15.6	1 253	12.3
Pacific	183	6.9	326	4.1	143	7.5	2 615	9.0	18	23.8	204	33.9
Pend Oreille	153	8.0	51	9.9	48	21.2	129	44.1	18	37.9	35	54.3
Pierce	652	5.3	1 170	1.7	365	8.6	12 493	.9	112	17.8	772	5.9
San Juan	109	7.1	46	15.7	53	13.1	179	11.9	31	21.8	41	31.8
Skagit	454	5.8	1 566	1.5	312	7.0	27 309	.9	96	16.2	752	2.0
Skamania	28	4.0	21	2.1	23	3.6	406	.6	6	9.7	19	2.3
Snohomish	720	5.1	1 556	2.2	394	8.7	22 632	.7	136	17.9	284	9.0
Spokane	1 179	3.6	1 159	5.3	533	7.2	6 268	5.2	123	19.3	254	16.3
Stevens	584	5.9	460	9.3	234	12.3	1 485	11.9	60	24.8	170	25.7
Thurston	577	5.9	1 510	2.1	271	11.9	20 395	.6	118	20.5	551	4.5

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Farm production expenses[1]—Con.

Geographic area	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Wahkiakum	57	11.8	68	27.7	32	18.8	111	14.7	9	43.5	13	49.8
Walla Walla	601	3.0	5 235	.9	381	5.0	24 745	4.2	75	24.7	(D)	(D)
Whatcom	911	3.9	2 851	2.0	659	4.7	26 844	1.8	137	14.0	910	5.2
Whitman	776	3.9	1 375	8.4	610	4.7	12 525	5.4	93	13.7	478	7.9
Yakima	2 733	1.8	10 360	1.0	2 026	2.3	194 947	.6	463	8.7	7 698	6.6

Farm production expenses[1]—Con.

Geographic area	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**23 501**	**.7**	**229 971**	**.7**	**8 798**	**1.7**	**85 730**	**1.0**	**11 538**	**1.4**	**214 518**	**.7**
Adams	528	3.8	11 767	3.6	313	7.3	6 022	7.9	346	7.1	8 614	2.2
Asotin	104	4.7	877	5.8	38	12.6	165	26.7	69	7.6	859	9.2
Benton	894	3.0	17 337	.6	327	8.7	9 401	1.4	426	7.6	14 022	1.3
Chelan	1 013	2.0	4 519	3.6	323	9.2	735	15.6	564	5.4	8 414	3.7
Clallam	211	7.2	727	18.2	50	28.3	61	18.3	53	27.9	327	26.9
Clark	856	4.5	2 376	7.7	225	13.6	380	8.6	320	10.3	2 312	9.9
Columbia	161	4.3	2 290	3.9	94	8.2	868	4.7	81	8.5	823	5.5
Cowlitz	268	5.8	760	5.0	56	22.1	182	10.9	99	15.5	830	11.6
Douglas	731	3.3	5 860	5.4	226	9.2	1 170	4.9	415	5.9	6 961	4.8
Ferry	146	3.6	480	17.2	16	22.1	53	25.2	54	10.9	187	14.8
Franklin	706	3.6	13 814	1.9	463	5.1	8 971	3.4	562	4.9	17 306	1.8
Garfield	142	4.3	2 245	3.9	89	7.6	725	11.8	106	5.8	2 088	5.0
Grant	1 507	1.6	26 740	1.6	816	4.0	13 678	2.1	1 032	3.5	32 641	1.7
Grays Harbor	300	6.7	996	8.0	74	23.4	189	10.6	133	17.2	1 031	12.4
Island	221	5.6	699	8.1	63	20.9	110	15.4	72	18.0	357	14.0
Jefferson	113	5.0	280	8.0	34	14.2	91	5.1	43	12.4	158	13.9
King	797	3.9	5 583	11.3	209	13.2	700	10.7	260	10.6	3 411	5.5
Kitsap	292	5.8	571	12.3	73	25.1	564	5.6	78	24.7	245	25.3
Kittitas	562	4.8	3 880	4.5	368	7.3	1 194	8.4	304	9.0	3 331	5.5
Klickitat	424	5.1	2 040	5.7	133	15.6	593	8.5	180	12.3	1 837	6.3
Lewis	865	3.7	3 483	12.7	248	12.0	1 237	2.0	323	9.8	3 010	5.8
Lincoln	605	3.3	8 438	3.7	243	10.3	2 249	6.7	353	7.2	3 712	5.7
Mason	152	4.9	1 219	1.3	27	19.2	145	2.4	53	13.3	328	9.4
Okanogan	1 055	3.1	6 442	3.5	356	9.3	1 217	10.3	558	6.1	7 416	4.0
Pacific	211	4.9	1 121	9.6	69	16.2	191	12.0	124	8.8	1 197	9.4
Pend Oreille	176	6.3	401	15.4	24	34.3	33	41.1	61	17.4	332	32.4
Pierce	774	3.8	4 630	2.9	178	13.9	603	2.7	223	11.4	2 249	5.9
San Juan	142	4.2	262	11.9	43	17.0	49	20.7	20	23.6	123	28.8
Skagit	567	4.3	7 165	2.2	193	10.2	2 676	3.6	259	8.1	6 387	1.8
Skamania	45	3.5	92	3.4	4	–	19	–	17	5.7	148	2.4
Snohomish	875	3.8	5 496	2.9	212	14.0	877	10.1	265	9.7	3 616	3.1
Spokane	1 285	3.1	6 392	4.7	423	9.0	1 355	8.3	567	7.4	4 965	6.9
Stevens	790	3.4	2 201	7.7	117	18.4	291	16.3	308	10.1	1 731	12.9
Thurston	633	4.7	9 847	1.1	189	15.8	789	2.7	219	13.5	4 808	2.9
Wahkiakum	82	7.3	197	15.2	12	29.6	11	22.8	34	16.1	214	21.3
Walla Walla	587	3.6	12 551	3.0	290	9.1	4 997	5.2	337	8.2	10 670	4.8
Whatcom	969	3.1	9 116	1.8	471	7.0	8 544	1.9	521	5.5	12 336	4.0
Whitman	866	3.1	14 410	3.2	401	6.9	3 884	5.2	545	5.6	8 736	5.5
Yakima	2 846	1.6	32 666	1.2	1 308	4.2	10 710	3.3	1 554	3.5	36 787	1.3

Farm production expenses[1]—Con.

Geographic area	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Washington ..	**5 888**	**2.1**	**124 823**	**1.2**	**27 085**	**.5**	**96 621**	**.8**	**26 118**	**.6**	**442 190**	**.4**
Adams	210	10.2	12 718	4.0	522	4.2	3 504	6.3	584	2.6	18 230	2.4
Asotin	40	11.3	406	6.9	132	2.6	307	7.3	133	2.8	1 298	4.3
Benton	154	13.1	10 742	.9	1 021	1.6	5 263	3.4	1 015	1.8	28 251	.7
Chelan	135	14.8	1 845	20.9	1 060	1.5	4 349	3.8	1 049	1.8	17 586	3.4
Clallam	62	19.2	263	22.6	289	1.0	336	11.0	242	5.6	842	30.1
Clark	139	16.9	675	6.3	1 096	1.9	2 045	4.8	985	2.9	4 641	2.4
Columbia	54	12.5	526	21.0	183	2.5	790	4.7	182	2.4	2 215	2.7
Cowlitz	40	23.1	383	7.9	321	3.4	718	7.8	283	5.7	991	4.1
Douglas	140	14.9	1 538	13.5	810	1.9	3 406	4.2	810	1.7	15 027	3.4

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

	Farm production expenses[1]—Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
Geographic area	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)
Ferry	32	16.4	79	10.0	172	2.3	294	7.9	163	3.1	420	5.8
Franklin	308	7.8	13 697	3.7	739	2.7	5 106	2.3	839	1.2	28 584	1.1
Garfield	43	11.2	820	2.4	169	2.4	750	4.0	164	2.5	2 580	5.4
Grant	569	5.0	27 655	2.5	1 567	1.5	10 327	1.4	1 627	1.3	62 615	1.0
Grays Harbor	52	24.9	325	1.9	361	3.6	695	5.8	351	4.7	1 216	3.6
Island	64	15.1	260	4.6	251	2.2	501	10.2	232	4.8	1 317	3.8
Jefferson	7	28.6	37	19.6	142	2.3	225	7.0	121	4.3	373	9.4
King	143	15.6	1 211	3.3	967	2.5	3 252	5.1	928	2.8	10 586	4.2
Kitsap	23	53.8	53	43.2	336	3.6	915	10.9	249	8.0	1 379	5.4
Kittitas	177	12.1	2 396	11.1	735	1.3	1 861	4.1	659	2.8	8 519	2.7
Klickitat	135	13.1	867	10.9	508	2.0	1 172	15.6	490	3.0	4 528	2.1
Lewis	221	10.7	1 414	12.3	1 066	1.6	2 061	4.0	1 021	2.1	6 650	2.9
Lincoln	208	10.3	4 003	9.6	608	3.2	1 932	6.3	683	2.0	10 134	3.6
Mason	31	17.9	114	18.7	199	2.6	284	6.0	177	3.4	1 117	5.9
Okanogan	231	13.3	848	16.9	1 200	1.8	4 632	5.8	1 198	2.0	15 507	3.2
Pacific	29	22.2	276	19.1	242	2.2	620	7.0	211	4.3	1 789	6.4
Pend Oreille	11	34.0	60	7.5	224	1.1	343	8.5	199	4.3	403	9.3
Pierce	96	16.6	525	3.5	956	1.4	2 667	5.1	815	3.5	7 480	3.0
San Juan	34	16.6	123	12.9	162	2.9	228	6.0	152	3.9	395	8.7
Skagit	207	9.1	4 645	1.8	683	1.6	2 487	2.7	582	3.7	16 129	1.2
Skamania	7	8.3	3	7.2	63	2.8	112	2.5	55	2.9	342	.6
Snohomish	141	14.9	1 862	5.9	1 062	2.0	3 087	4.6	937	3.1	12 425	1.7
Spokane	309	10.3	2 088	9.8	1 578	1.4	3 055	4.5	1 380	2.5	7 600	4.7
Stevens	153	15.6	805	20.1	938	1.9	1 275	5.0	877	2.7	3 091	10.4
Thurston	95	24.6	435	26.0	782	2.5	2 762	7.2	735	3.1	11 749	.7
Wahkiakum	29	21.5	80	14.3	99	4.7	191	11.8	97	4.9	393	22.6
Walla Walla	134	14.1	4 197	5.2	623	3.5	3 361	5.6	658	2.5	16 497	3.5
Whatcom	374	7.1	3 997	4.3	1 165	1.5	3 738	4.7	1 103	2.2	21 842	2.4
Whitman	341	7.8	8 358	6.9	887	2.4	3 410	3.9	955	1.6	12 161	3.0
Yakima	710	5.5	14 496	2.4	3 167	.9	14 556	1.4	3 177	1.0	85 289	.6

	Net cash return from agricultural sales for the farm unit (see text)[1]				Total cropland				Harvested cropland			
	Farms		Value		Farms		Acres		Farms		Acres	
Geographic area	Number	Relative standard error of estimate (percent)	Total ($1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Washington	**29 009**	**.4**	**1 132 634**	**.6**	**24 656**	**.4**	**7 913 709**	**.3**	**20 445**	**.4**	**4 895 633**	**.2**
Adams	628	.6	60 549	4.0	570	.7	808 651	.6	484	.8	413 299	.5
Asotin	140	1.9	1 348	14.4	105	1.4	87 282	1.7	75	2.0	36 126	1.8
Benton	1 079	.5	68 499	1.7	919	.5	440 291	.5	687	.6	274 855	.2
Chelan	1 112	.6	47 050	3.5	1 082	.5	41 046	1.2	1 055	.5	33 167	.6
Clallam	292	1.0	1 082	56.6	215	.8	12 116	2.1	153	1.3	5 901	2.9
Clark	1 174	.5	6 478	8.2	965	.5	42 773	1.2	714	.7	25 510	1.5
Columbia	198	1.2	3 712	8.0	173	.8	177 982	1.1	151	1.1	109 607	.7
Cowlitz	348	.8	2 209	17.3	266	.8	15 159	1.5	173	1.4	7 882	1.7
Douglas	854	.5	33 121	4.3	806	.4	532 757	.7	737	.5	225 102	.6
Ferry	179	1.8	633	31.5	156	1.2	22 447	2.7	120	1.8	12 994	3.2
Franklin	849	.7	95 440	1.4	777	.5	(D)	(D)	701	.6	291 241	.4
Garfield	182	1.4	4 203	9.1	160	.8	192 220	.8	144	1.1	114 645	.8
Grant	1 700	.5	200 276	.9	1 549	.5	786 332	.6	1 405	.5	566 807	.3
Grays Harbor	388	.9	2 427	36.2	317	.8	24 126	1.3	247	1.1	14 716	1.4
Island	261	1.1	1 218	13.8	216	.8	10 977	1.7	179	1.1	8 046	1.7
Jefferson	144	2.0	1 327	6.9	110	1.3	8 076	4.3	86	1.9	2 542	2.9
King	1 091	.7	14 625	9.0	742	.8	24 243	1.2	502	1.0	10 591	1.2
Kitsap	359	.8	937	77.0	247	1.0	5 594	2.0	176	1.4	3 724	2.1
Kittitas	757	.7	17 600	5.6	628	.6	87 299	1.2	489	.8	58 409	.8
Klickitat	532	.7	4 072	8.6	454	.6	186 136	1.0	365	.8	89 643	.9
Lewis	1 116	.6	18 564	5.2	935	.5	61 720	.9	727	.7	36 370	1.1
Lincoln	708	.6	33 761	4.8	652	.6	876 196	.5	574	.6	489 505	.5
Mason	212	1.6	1 922	8.2	157	1.3	6 697	4.0	123	1.8	4 710	5.2
Okanogan	1 270	.7	31 732	4.5	1 098	.7	142 145	1.4	985	.8	73 261	1.1
Pacific	252	1.1	4 985	7.1	220	.7	14 667	2.8	191	.9	6 932	2.3
Pend Oreille	224	1.1	-352	90.9	188	1.0	26 763	2.2	159	1.3	14 516	2.2
Pierce	989	.6	9 504	5.6	680	.7	23 811	.9	440	1.0	12 592	1.0
San Juan	174	1.2	131	74.1	156	.9	11 547	5.4	125	1.4	4 122	5.6
Skagit	714	.5	40 882	1.3	613	.5	73 028	.5	511	.7	61 257	.5
Skamania	63	2.8	31	36.2	45	2.1	1 911	3.5	40	2.4	1 206	3.0
Snohomish	1 138	.6	15 057	7.2	829	.6	39 931	.9	572	.9	24 807	1.0
Spokane	1 643	.5	15 669	8.9	1 402	.5	398 064	.7	1 133	.6	280 969	.6
Stevens	989	.6	1 639	46.3	834	.6	123 434	1.4	685	.8	66 790	1.6
Thurston	831	.6	22 532	3.1	598	.7	27 049	1.6	420	1.0	14 831	2.0
Wahkiakum	108	2.0	458	41.3	97	.7	8 897	3.0	73	1.3	3 837	3.3
Walla Walla	716	.6	54 318	4.2	635	.4	597 738	.5	541	.6	342 371	.4
Whatcom	1 227	.4	46 573	2.7	1 068	.4	80 854	.5	905	.5	60 715	.5
Whitman	1 003	.7	40 176	5.0	925	.6	1 066 676	.5	852	.7	801 501	.4
Yakima	3 365	.4	228 244	1.1	3 067	.4	(D)	(D)	2 746	.4	290 534	.2

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land — Farms Number	Irrigated land — Farms Relative standard error of estimate (percent)	Irrigated land — Acres Number	Irrigated land — Acres Relative standard error of estimate (percent)	Cattle and calves inventory — Farms Number	Cattle and calves inventory — Farms Relative standard error of estimate (percent)	Cattle and calves inventory — Total Number	Cattle and calves inventory — Total Relative standard error of estimate (percent)	Beef cows inventory — Farms Number	Beef cows inventory — Farms Relative standard error of estimate (percent)	Beef cows inventory — Total Number	Beef cows inventory — Total Relative standard error of estimate (percent)
Washington ..	**13 131**	**.4**	**1 705 025**	**.2**	**11 721**	**.4**	**1 204 265**	**.2**	**8 627**	**.5**	**304 473**	**.5**
Adams	294	1.2	148 018	.5	161	1.9	29 276	.9	132	2.1	11 603	1.4
Asotin	22	5.5	329	7.0	83	1.9	11 416	1.7	72	2.2	(D)	(D)
Benton	901	.5	153 254	.2	431	.9	14 762	1.2	301	1.2	7 066	1.6
Chelan	1 058	.5	30 562	.5	54	3.6	1 818	5.6	38	4.4	1 126	7.2
Clallam	90	1.9	3 770	2.7	164	1.2	5 758	2.2	135	1.4	2 212	3.0
Clark	173	1.7	3 839	2.2	627	.7	23 022	1.1	480	.9	5 332	1.7
Columbia	54	3.0	3 565	2.8	80	2.2	7 414	2.1	70	2.4	(D)	(D)
Cowlitz	36	3.2	3 231	.9	212	1.1	6 780	1.4	185	1.2	2 704	2.3
Douglas	553	.6	21 199	.5	103	1.8	13 849	.8	87	1.9	7 618	1.1
Ferry	43	4.3	4 667	5.4	112	2.0	10 992	2.8	96	2.4	7 074	3.1
Franklin	725	.6	221 145	.3	209	1.6	41 405	.6	147	2.0	10 636	1.5
Garfield	23	5.1	693	3.7	86	1.9	11 371	1.2	83	2.0	(D)	(D)
Grant	1 409	.5	446 183	.3	506	1.1	164 022	.3	370	1.3	23 107	1.4
Grays Harbor	81	2.3	3 067	1.3	235	1.2	13 771	1.1	184	1.5	3 316	2.7
Island	64	2.6	1 380	3.3	144	1.4	6 918	1.2	99	2.0	1 060	3.7
Jefferson	36	4.0	847	1.6	81	2.0	4 325	1.4	71	2.2	1 625	2.3
King	225	1.7	3 291	1.4	406	1.2	32 806	.8	252	1.7	2 370	3.0
Kitsap	77	2.6	366	5.3	141	1.6	1 951	7.9	109	2.0	953	9.2
Kittitas	621	.6	75 859	.9	375	1.0	37 002	1.3	295	1.2	15 359	1.8
Klickitat	176	1.5	20 239	2.1	254	1.1	26 180	1.3	206	1.3	13 399	1.4
Lewis	127	1.8	5 765	1.5	694	.7	34 264	.7	533	.8	7 916	1.5
Lincoln	120	1.6	47 984	1.3	252	1.2	32 302	.9	232	1.3	(D)	(D)
Mason	44	4.0	382	4.3	76	2.8	2 218	4.4	59	3.3	1 034	4.3
Okanogan	932	.8	47 679	1.1	460	1.3	54 615	1.5	388	1.4	31 040	1.5
Pacific	103	1.5	3 367	4.6	118	1.6	7 281	1.8	94	1.9	2 384	3.6
Pend Oreille	29	4.5	1 583	5.2	134	1.6	6 635	2.5	116	1.8	3 611	2.7
Pierce	214	1.5	5 149	1.0	480	.9	22 119	.7	382	1.1	4 533	2.0
San Juan	48	3.6	904	21.7	75	2.5	3 420	6.1	55	3.2	1 749	7.4
Skagit	165	1.6	9 821	.9	395	.8	39 800	.6	235	1.3	3 838	2.2
Skamania	9	6.9	272	1.0	29	3.2	711	5.4	23	3.5	392	5.9
Snohomish	169	1.7	4 182	1.3	543	.9	43 359	.5	352	1.3	4 508	2.2
Spokane	266	1.5	10 711	1.1	596	.9	28 596	1.8	447	1.1	12 083	1.9
Stevens	184	1.9	9 997	2.7	601	.9	33 962	1.4	500	1.0	15 853	1.8
Thurston	163	1.8	5 564	1.2	438	.9	29 570	.6	329	1.2	6 485	1.4
Wahkiakum	4	14.9	175	13.1	95	.8	5 375	2.5	78	1.3	2 088	3.9
Walla Walla	378	.8	97 136	.4	217	1.3	58 105	.4	165	1.6	(D)	(D)
Whatcom	415	.8	25 792	.5	800	.5	120 652	.3	334	1.1	4 748	1.6
Whitman	57	3.0	5 469	4.5	299	1.3	25 379	1.7	256	1.5	12 921	1.9
Yakima	3 043	.4	277 589	.3	955	.7	191 064	.3	637	1.0	31 755	.8

Livestock and poultry—Con.

Geographic area	Milk cows inventory — Farms Number	Milk cows inventory — Farms Relative standard error of estimate (percent)	Milk cows inventory — Total Number	Milk cows inventory — Total Relative standard error of estimate (percent)	Hogs and pigs inventory — Farms Number	Hogs and pigs inventory — Farms Relative standard error of estimate (percent)	Hogs and pigs inventory — Total Number	Hogs and pigs inventory — Total Relative standard error of estimate (percent)	Sheep and lambs inventory — Farms Number	Sheep and lambs inventory — Farms Relative standard error of estimate (percent)	Sheep and lambs inventory — Total Number	Sheep and lambs inventory — Total Relative standard error of estimate (percent)
Washington ..	**1 302**	**.6**	**247 191**	**.1**	**978**	**.9**	**38 030**	**1.5**	**1 189**	**.9**	**52 298**	**1.3**
Adams	13	6.0	3 211	.2	12	8.7	4 147	2.1	23	5.1	1 027	12.5
Asotin	3	9.2	(D)	(D)	4	15.2	55	18.5	6	10.9	214	25.1
Benton	21	4.9	2 335	.7	43	3.7	242	6.0	40	3.9	1 208	5.8
Chelan	4	13.5	9	12.1	7	10.3	(D)	(D)	8	9.0	108	11.6
Clallam	11	5.0	750	1.8	16	5.6	54	10.8	21	4.8	583	8.8
Clark	47	2.7	5 447	.6	45	3.5	368	8.4	38	4.3	1 090	7.8
Columbia	2	22.5	(D)	(D)	6	10.4	678	6.8	12	6.7	476	12.6
Cowlitz	7	6.5	751	.1	22	4.5	146	6.7	15	6.4	557	6.8
Douglas	3	13.7	6	20.6	13	5.4	339	1.2	13	6.8	189	10.1
Ferry	7	11.6	21	22.9	3	19.1	10	20.7	15	7.3	301	7.9
Franklin	14	4.8	4 342	.3	9	10.1	98	13.7	21	5.9	1 759	5.5
Garfield	2	20.7	(D)	(D)	4	11.9	(D)	(D)	8	10.3	84	12.1
Grant	49	2.9	12 128	.5	57	3.5	9 223	2.5	48	4.1	5 154	2.1
Grays Harbor	24	2.7	3 889	.6	12	7.7	186	18.9	13	7.7	387	14.1
Island	10	5.8	2 409	.5	8	9.1	50	13.0	14	7.3	158	9.9
Jefferson	8	8.2	730	2.8	6	9.0	101	2.4	8	9.8	80	12.6
King	74	1.8	16 897	.2	47	4.4	595	9.8	67	3.5	1 211	5.2
Kitsap	8	8.0	15	7.9	21	5.2	84	6.9	25	5.1	421	10.3
Kittitas	15	6.1	552	2.6	25	5.0	424	3.8	49	3.5	2 360	4.0
Klickitat	18	4.7	1 483	.5	21	5.1	462	4.9	45	3.4	2 760	8.4
Lewis	75	2.3	8 360	.6	57	3.4	518	5.0	60	3.1	1 106	4.4
Lincoln	2	26.2	(D)	(D)	15	6.3	947	6.6	23	4.5	1 072	5.2
Mason	6	12.0	27	14.5	19	6.4	134	10.6	10	8.9	113	12.0
Okanogan	35	5.3	87	8.7	46	4.5	318	7.5	55	4.0	4 216	7.2
Pacific	14	4.3	2 057	1.3	2	17.6	(D)	(D)	5	12.5	78	15.2
Pend Oreille	8	9.9	8	9.9	7	10.2	134	16.0	8	8.9	159	15.6
Pierce	44	2.8	6 810	.3	53	3.4	1 298	9.9	55	3.5	1 216	6.5
San Juan	10	9.0	21	11.7	7	10.9	67	20.2	44	3.7	2 113	12.9
Skagit	93	1.3	20 612	.2	21	4.7	478	15.5	29	4.7	356	6.5

See footnotes at end of table.

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Livestock and poultry—Con.

Geographic area	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Skamania	–	–	–	–	2	24.6	(D)	(D)	6	11.4	(D)	(D)
Snohomish	106	1.5	21 295	.3	64	3.4	559	5.4	61	3.5	1 172	6.1
Spokane	35	3.5	2 570	1.8	53	3.6	1 294	11.2	59	3.2	2 259	5.4
Stevens	50	4.1	1 606	4.1	41	4.3	1 230	15.8	48	4.1	1 440	6.6
Thurston	43	3.0	11 410	.4	43	3.9	588	3.0	44	3.8	1 288	2.3
Wahkiakum	9	5.4	569	5.4	2	17.5	(D)	(D)	4	8.0	(D)	(D)
Walla Walla	8	7.5	(D)	(D)	14	6.8	507	22.2	31	4.2	1 583	12.0
Whatcom	307	.7	64 162	.2	36	3.8	350	14.0	40	3.8	406	5.4
Whitman	6	7.8	437	.4	39	4.1	9 446	1.7	48	4.0	2 329	8.5
Yakima	111	1.6	51 050	.1	76	3.0	1 341	6.3	70	3.0	10 449	.9

Livestock and poultry—Con.

Geographic area	Layers 20 weeks old and older inventory				Broilers and other meat-type chickens sold			
	Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Washington ..	**1 504**	**.8**	**4 787 360**	**.1**	**162**	**1.8**	**30 183 641**	**.1**
Adams	15	6.6	506	1.4	4	12.6	(D)	(D)
Asotin	8	10.2	178	15.6	1	35.7	(D)	(D)
Benton................	51	3.4	574	3.9	4	14.1	303	25.5
Chelan................	14	7.9	203	7.9	2	18.8	(D)	(D)
Clallam	31	3.7	607	4.3	2	12.9	(D)	(D)
Clark	89	2.5	1 600	3.3	17	3.6	3 113 488	(L)
Columbia	6	10.0	443	15.3	2	20.9	(D)	(D)
Cowlitz	27	4.6	551	4.7	7	3.0	2 964 369	(L)
Douglas...............	8	7.8	182	10.0	–	–	–	–
Ferry	26	5.7	(D)	(D)	–	–	–	–
Franklin	19	5.3	(D)	(D)	–	–	–	–
Garfield	5	9.7	32	5.2	–	–	–	–
Grant	47	4.1	(D)	(D)	1	34.6	(D)	(D)
Grays Harbor	30	4.9	610	8.8	3	18.5	459	23.7
Island.................	32	4.4	347	5.3	1	29.1	(D)	(D)
Jefferson..............	14	6.7	278	9.5	1	22.9	(D)	(D)
King	112	2.7	2 831	6.1	14	7.9	7 406	30.5
Kitsap	57	3.1	1 083	4.7	–	–	–	–
Kittitas	27	4.8	354	6.2	–	–	–	–
Klickitat	30	4.5	602	5.8	3	16.9	72	23.3
Lewis.................	78	2.8	(D)	(D)	21	1.7	11 358 040	(L)
Lincoln................	22	4.8	387	4.3	3	11.8	129	12.2
Mason	19	6.8	400	10.2	2	20.0	(D)	(D)
Okanogan..............	54	4.1	837	4.9	1	39.5	(D)	(D)
Pacific	7	10.1	85	15.5	–	–	–	–
Pend Oreille	16	6.9	326	5.5	–	–	–	–
Pierce	72	3.1	(D)	(D)	7	6.7	2 829 859	(L)
San Juan	35	4.3	1 093	8.1	2	20.8	(D)	(D)
Skagit	33	4.0	453 744	(L)	3	16.6	(D)	(D)
Skamania	6	9.4	72	15.3	–	–	–	–
Snohomish	96	2.6	767 364	(L)	13	6.7	1 821 890	(L)
Spokane	74	3.0	(D)	(D)	9	8.7	(D)	(D)
Stevens...............	79	3.1	1 116	3.6	3	16.6	(D)	(D)
Thurston	82	2.6	1 753 935	(L)	18	5.6	1 006 973	(L)
Wahkiakum	6	10.3	87	8.4	2	23.1	(D)	(D)
Walla Walla	20	4.9	(D)	(D)	–	–	–	–
Whatcom	56	3.2	(D)	(D)	9	2.8	3 127 984	(L)
Whitman	29	5.3	446	6.5	3	15.6	(D)	(D)
Yakima	72	3.1	(D)	(D)	4	7.4	(D)	(D)

Selected crops harvested

Geographic area	Corn for grain or seed						Wheat for grain					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Washington ..	**514**	**.8**	**84 300**	**.4**	**16 163 861**	**.4**	**4 097**	**.5**	**2 422 506**	**.3**	**151 124 143**	**.3**
Adams	49	2.3	5 388	1.3	900 277	1.3	334	1.0	303 813	.6	18 817 125	.6
Asotin	–	–	–	–	–	–	39	3.1	21 110	2.5	1 087 067	2.6
Benton................	11	2.8	(D)	(D)	(D)	(D)	81	1.0	130 981	.3	5 243 820	.5
Chelan................	–	–	–	–	–	–	8	8.5	1 864	5.7	55 461	8.6

See footnotes at end of table.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Corn for grain or seed						Wheat for grain					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Clallam	1	23.7	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Clark	1	25.8	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Columbia	4	–	51	–	3 840	–	118	1.4	77 511	.8	4 952 753	.8
Cowlitz	–	–	–	–	–	–	4	–	293	–	16 810	–
Douglas...............	1	–	(D)	(D)	(D)	(D)	190	1.1	200 291	.6	9 122 962	.6
Ferry	–	–	–	–	–	–	8	10.1	736	10.8	23 488	12.1
Franklin	99	1.8	11 337	1.0	2 045 648	1.1	266	1.0	109 627	.9	7 398 292	.8
Garfield	–	–	–	–	–	–	122	1.3	71 689	.9	4 470 655	.9
Grant	188	1.1	29 953	.9	5 221 535	.9	494	.8	203 498	.7	16 127 060	.6
Grays Harbor	1	29.3	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Island	–	–	–	–	–	–	2	–	(D)	(D)	(D)	(D)
Jefferson..............	1	–	(D)	(D)	(D)	(D)	–	–	–	–	–	–
King	5	11.0	30	4.5	2 698	3.6	2	18.6	(D)	(D)	(D)	(D)
Kitsap	–	–	–	–	–	–	1	28.5	(D)	(D)	(D)	(D)
Kittitas	1	–	(D)	(D)	(D)	(D)	58	2.5	5 224	1.9	396 134	1.2
Klickitat	1	–	(D)	(D)	(D)	(D)	117	1.7	40 401	1.1	1 306 608	1.1
Lewis.................	–	–	–	–	–	–	19	5.6	1 104	8.7	62 398	7.3
Lincoln...............	3	15.7	564	9.3	68 477	8.5	471	.8	355 317	.5	23 096 865	.5
Mason	–	–	–	–	–	–	–	–	–	–	–	–
Okanogan.............	–	–	–	–	–	–	22	4.8	8 410	2.4	367 391	2.4
Pacific	–	–	–	–	–	–	–	–	–	–	–	–
Pend Oreille	–	–	–	–	–	–	2	23.1	(D)	(D)	(D)	(D)
Pierce	–	–	–	–	–	–	1	–	(D)	(D)	(D)	(D)
San Juan	–	–	–	–	–	–	1	27.1	(D)	(D)	(D)	(D)
Skagit	2	12.9	(D)	(D)	(D)	(D)	49	2.2	3 477	1.3	293 433	1.3
Skamania	–	–	–	–	–	–	–	–	–	–	–	–
Snohomish	2	15.7	(D)	(D)	(D)	(D)	9	7.6	428	11.2	28 137	10.4
Spokane	3	–	(D)	(D)	(D)	(D)	337	1.1	115 324	.8	6 567 056	.8
Stevens..............	1	–	(D)	(D)	(D)	(D)	90	2.9	9 530	4.1	505 119	4.2
Thurston	1	28.9	(D)	(D)	(D)	(D)	1	26.9	(D)	(D)	(D)	(D)
Wahkiakum	–	–	–	–	–	–	–	–	–	–	–	–
Walla Walla	14	3.5	6 539	1.0	1 433 777	.9	341	.8	232 419	.5	15 934 694	.5
Whatcom	3	11.6	(D)	(D)	4 334	3.7	8	3.2	626	.9	50 914	.3
Whitman	4	10.1	101	.8	7 279	.4	757	.7	478 098	.5	32 213 116	.4
Yakima	118	1.5	12 680	.8	2 192 895	.7	145	1.4	50 430	.7	2 968 795	.7

Selected crops harvested—Con.

Geographic area	Barley for grain						Potatoes, excluding sweetpotatoes					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Hundredweight	Relative standard error of estimate (percent)
Washington ..	**1 787**	**.6**	**436 299**	**.4**	**30 939 269**	**.4**	**415**	**.6**	**155 074**	**.1**	**87 208 607**	**.1**
Adams.................	55	2.4	10 022	1.4	628 929	1.3	43	.9	27 914	(L)	16 832 527	(L)
Asotin.................	36	3.2	10 205	2.7	574 225	2.9	–	–	–	–	–	–
Benton................	4	6.7	435	2.5	(D)	(D)	16	–	25 317	–	15 378 759	–
Chelan................	1	–	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Clallam	4	5.0	453	.1	44 002	.1	1	19.9	(D)	(D)	(D)	(D)
Clark	4	8.4	830	3.2	69 144	3.1	2	10.7	(D)	(D)	(D)	(D)
Columbia	71	2.0	17 547	1.4	1 357 552	1.5	–	–	–	–	–	–
Cowlitz	–	–	–	–	–	–	2	13.7	(D)	(D)	(D)	(D)
Douglas...............	25	3.6	2 751	3.4	148 695	2.8	–	–	–	–	–	–
Ferry	2	17.5	(D)	(D)	(D)	(D)	–	–	–	–	–	–
Franklin	5	10.3	(D)	(D)	(D)	(D)	85	1.3	35 770	.2	19 985 308	.3
Garfield	105	1.4	36 082	1.0	2 622 984	1.1	–	–	–	–	–	–
Grant	55	2.6	6 548	1.5	528 153	1.3	156	.6	44 263	.1	24 548 920	.1
Grays Harbor	1	–	(D)	(D)	(D)	(D)	1	–	(D)	(D)	(D)	(D)
Island	8	6.6	487	5.2	35 994	6.1	1	26.2	(D)	(D)	(D)	(D)
Jefferson..............	–	–	–	–	–	–	1	31.8	(D)	(D)	(D)	(D)
King	–	–	–	–	–	–	6	12.2	2	20.7	548	18.4
Kitsap	–	–	–	–	–	–	4	14.1	2	22.3	535	20.5
Kittitas	7	7.7	135	8.9	12 687	10.2	5	4.9	442	1.9	153 560	1.9
Klickitat	38	3.0	7 464	3.0	351 563	2.3	3	17.1	(D)	(D)	(D)	(D)
Lewis.................	24	5.4	873	7.8	49 923	8.4	–	–	–	–	–	–
Lincoln...............	283	1.0	102 415	.7	7 312 012	.7	7	–	771	–	428 495	–
Mason	–	–	–	–	–	–	–	–	–	–	–	–
Okanogan.............	13	6.9	614	8.7	25 731	9.1	2	23.1	(D)	(D)	(D)	(D)
Pacific	–	–	–	–	–	–	–	–	–	–	–	–
Pend Oreille	4	15.2	105	16.0	11 200	21.8	1	25.2	(D)	(D)	(D)	(D)
Pierce	1	–	(D)	(D)	(D)	(D)	4	10.3	7	6.3	595	1.0
San Juan	2	20.5	(D)	(D)	(D)	(D)	5	11.6	1	12.7	185	14.2
Skagit	20	3.7	821	2.7	72 018	2.4	16	3.8	6 948	(L)	2 341 125	(L)
Skamania	–	–	–	–	–	–	–	–	–	–	–	–
Snohomish	9	7.4	199	7.9	15 644	8.3	2	22.3	(D)	(D)	(D)	(D)
Spokane	246	1.3	43 927	1.1	2 870 171	1.2	9	7.4	(D)	(D)	(D)	(D)
Stevens..............	88	2.9	7 462	4.8	493 260	5.4	5	9.9	(D)	(D)	(D)	(D)
Thurston	1	24.7	(D)	(D)	(D)	(D)	4	12.9	(D)	(D)	(D)	(D)

See footnotes at end of table.

USDA, National Agricultural Statistics Service

Table F. **Reliability Estimates for the State and County Totals: 1997**—Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested—Con.											
	Barley for grain						Potatoes, excluding sweetpotatoes					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Hundredweight	Relative standard error of estimate (percent)
Wahkiakum	–	–	–	–	–	–	–	–	–	–	–	–
Walla Walla	95	1.5	22 584	.8	1 548 810	.8	9	2.5	9 256	(L)	5 943 150	(L)
Whatcom	1	–	(D)	(D)	(D)	(D)	12	5.6	1 585	.7	475 550	.6
Whitman	566	.8	160 110	.6	11 934 457	.7	–	–	–	–	–	–
Yakima	13	5.7	502	11.3	37 977	9.3	13	3.9	1 929	.2	741 258	.2

Geographic area	Selected crops harvested—Con.								
	Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)						Vegetables harvested for sale (see text)		
	Farms		Acres		Quantity		Farms		Acres
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Washington ..	**10 108**	**.4**	**800 677**	**.4**	**3 013 551**	**.4**	**1 506**	**.6**	**209 456**	**.2**
Adams................	148	1.9	27 252	1.3	143 370	1.2	31	2.9	3 793	.7
Asotin	39	3.4	4 515	3.1	7 458	2.7	2	25.7	(D)	(D)
Benton...............	256	1.3	18 737	1.1	96 064	.8	43	2.8	23 536	(L)
Chelan...............	55	3.6	1 953	5.9	5 431	5.4	5	12.3	15	16.8
Clallam	109	1.7	5 457	3.2	15 244	4.4	9	7.2	97	9.9
Clark	484	.9	19 769	1.7	37 729	1.6	17	6.1	212	5.6
Columbia	61	2.6	2 806	2.3	9 471	2.5	6	5.3	1 787	(L)
Cowlitz	122	1.8	4 261	3.2	7 459	2.1	13	5.0	2 271	.9
Douglas..............	47	2.5	3 516	2.4	10 685	2.1	3	14.5	(D)	(D)
Ferry	114	1.9	12 214	3.3	27 340	4.3	–	–	–	–
Franklin..............	339	1.0	75 728	.7	507 962	.7	176	1.3	30 145	.7
Garfield..............	51	2.8	2 310	2.0	5 334	2.1	–	–	–	–
Grant	754	.8	126 450	.7	715 537	.6	232	1.0	61 419	.4
Grays Harbor	175	1.6	12 335	1.8	25 481	1.6	12	6.4	2 450	1.3
Island................	126	1.7	7 608	1.8	20 456	1.0	13	5.7	106	2.2
Jefferson.............	59	2.7	2 741	2.9	6 915	2.4	8	8.2	10	8.6
King	215	1.8	7 253	1.5	22 442	1.2	71	3.2	1 436	2.5
Kitsap	67	2.8	1 375	5.1	1 782	5.7	18	6.1	29	7.7
Kittitas	446	.8	45 655	.9	202 534	1.0	44	2.5	4 437	1.5
Klickitat	256	1.1	35 540	1.5	55 567	1.4	16	4.9	(D)	(D)
Lewis	562	.8	24 463	1.3	53 694	1.2	23	4.6	2 341	2.3
Lincoln...............	235	1.2	24 902	1.6	66 439	1.6	6	9.5	(D)	(D)
Mason	45	3.9	2 113	8.5	4 841	13.5	11	7.6	150	6.5
Okanogan.............	454	1.3	34 283	2.1	84 490	2.2	17	8.1	21	11.5
Pacific	89	2.1	5 619	2.9	12 005	3.9	3	11.5	5	11.0
Pend Oreille	152	1.3	14 288	2.1	24 874	2.1	1	35.3	(D)	(D)
Pierce	228	1.6	6 966	1.7	15 260	1.5	60	2.9	3 079	1.3
San Juan	77	2.4	3 971	5.9	7 275	6.6	15	7.1	27	17.6
Skagit	318	1.0	19 446	1.5	63 224	.6	103	1.8	16 740	.7
Skamania	19	4.1	489	7.1	1 009	4.3	1	–	(D)	(D)
Snohomish	313	1.3	15 913	1.2	44 943	.9	62	2.9	3 888	3.1
Spokane	814	.7	52 901	1.3	102 604	1.5	37	4.5	449	4.6
Stevens..............	601	.9	48 023	1.5	102 378	1.7	15	7.4	120	1.5
Thurston	267	1.4	12 190	2.4	31 542	2.0	34	4.3	490	2.5
Wahkiakum	72	1.4	4 051	3.3	8 277	4.4	1	28.7	(D)	(D)
Walla Walla	169	1.5	16 169	1.0	86 311	.9	127	1.6	23 385	.9
Whatcom	658	.6	40 910	.6	146 740	.4	25	4.5	698	5.9
Whitman	254	1.4	12 637	2.1	30 536	2.2	33	3.6	5 792	2.9
Yakima	858	.8	43 868	1.0	202 848	.9	213	1.3	18 479	.5

Geographic area	Selected crops harvested–Con.			
	Land in orchards			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Washington ..	**5 700**	**.5**	**301 376**	**.2**
Adams................	45	3.2	3 597	1.5
Asotin	11	9.2	74	10.7
Benton...............	379	1.0	38 705	.3
Chelan................	992	.5	29 249	.5
Clallam	19	4.9	49	5.9
Clark	69	2.9	458	3.9
Columbia	3	17.8	(D)	(D)
Cowlitz	16	6.3	43	8.9
Douglas..............	522	.7	17 910	.5

See footnotes at end of table.

Reliability Estimates for the State and County Totals: 1997—Con.

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested–Con.			
	Land in orchards			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Ferry	4	14.7	106	23.4
Franklin	227	1.4	14 679	1.0
Garfield	2	19.1	(D)	(D)
Grant	368	1.1	41 934	.4
Grays Harbor	12	8.7	36	15.5
Island.................	19	6.2	39	8.0
Jefferson..............	4	15.7	5	16.5
King	41	4.8	115	6.0
Kitsap	27	4.8	43	6.5
Kittitas	41	3.6	2 236	1.5
Klickitat	65	2.7	2 541	1.3
Lewis	47	3.6	154	5.0
Lincoln................	5	7.1	85	7.5
Mason	10	8.9	15	13.6
Okanogan..............	568	1.1	28 623	.6
Pacific	7	9.5	27	13.2
Pend Oreille	1	29.8	(D)	(D)
Pierce	34	4.8	89	6.0
San Juan	35	4.1	89	4.8
Skagit	45	4.0	403	6.1
Skamania	20	4.4	654	1.1
Snohomish	36	4.7	94	6.2
Spokane	48	3.9	367	5.5
Stevens...............	39	4.5	231	4.9
Thurston	21	5.8	37	6.3
Wahkiakum	2	12.9	(D)	(D)
Walla Walla	44	3.0	8 057	.2
Whatcom	58	3.2	419	8.1
Whitman	9	8.8	25	7.8
Yakima	1 805	.5	109 940	.3

[1]Data are based on a sample of farms.

Table G. **Coverage Estimates: 1997**

[For meaning of abbreviations and symbols, see introductory text]

Item	Census total	Coverage total[1]	Adjusted census		Coverage adjustment (percent)
			Total	Relative standard error (percent)	
Farms .... number..	29 011	11 089	40 100	4.5	27.7
Land in farms .... acres..	15 179 710	664 756	15 844 466	.9	4.2
Average size of farm .... acres..	523	60	395	(X)	(X)
Farms by size of farm:					
Less than 10 acres	5 195	3 173	8 368	13.4	37.9
10 to 49 acres	9 727	6 596	16 323	8.9	40.4
50 to 179 acres	6 250	873	7 123	5.0	12.3
180 acres or more	7 839	447	8 286	2.6	5.4
Farms by value of sales:					
Less than $2,500	8 698	7 363	16 061	9.5	45.8
$2,500 to $9,999	6 253	3 093	9 346	8.7	33.1
$10,000 or more	14 060	633	14 693	1.7	4.3
Market value of agricultural products sold.................................$1,000..	4 767 727	52 503	4 820 230	.5	1.1
Farms by type of organization:					
Individual or family.......................................	23 466	11 002	34 468	5.2	31.9
Partnership, corporation, or other	5 545	87	5 632	2.2	1.5
Farms by tenure of operator:					
Full owners	19 015	8 557	27 572	5.2	31.0
Part owners	7 186	1 488	8 674	8.9	17.2
Tenants	2 810	1 044	3 854	21.4	27.1
Operators by place of residence:					
On farm operated	22 618	9 034	31 652	5.2	28.5
Not on farm operated	4 748	1 005	5 753	8.6	17.5
Not reported	1 645	1 050	2 695	15.8	39.0
Operators by principal occupation:					
Farming	15 465	1 720	17 185	3.1	10.0
Other	13 546	9 369	22 915	7.6	40.9
Operators by sex:					
Male	25 488	9 822	35 310	4.9	27.8
Female...	3 523	1 267	4 790	12.9	26.5
Operators by race:					
White	28 290	10 667	38 957	4.6	27.4
Black and other races	721	422	1 143	38.1	36.9
Operators by years on present farm:					
4 years or less	3 432	1 653	5 085	14.3	32.5
5 years or more	21 968	6 569	28 537	4.9	23.0
Not reported	3 611	2 867	6 478	15.7	44.3

[1] See text in Appendix C regarding coverage estimates.