

METHODOLOGY FOR DETERMINING CALIFORNIA AGRICULTURAL EXPORTS:

Data to compute agricultural exports are derived from official government sources, published industry sources and unpublished information from government and industry. Total US export quantities and values and California port exports are from Department of Commerce trade data posted on the United States International Trade Commission online database (<http://dataweb.usitc.gov/>). Canadian import data are from the Statistics Canada online database (<http://www.statcan.ca/start.html>). Production quantities and values are from various National Agricultural Statistics Service (NASS) and Economic Research Service (ERS) Publications.

Export data were converted into Metric Tons (MT) or Hectoliters (HL).
Conversions: 1 MT = 2204.622 pounds; 1 gallon = 0.037853 HL; 1 short ton=2000 pounds; 1 cwt=100 pounds

Key to Formulas and Sources:

CAN = Value of California exports to Canada.

PORT.Q = Quantity shipped from California Ports.

PORT.V = Value shipped from California Ports.

Q.AZ = Arizona production quantity.

Q.CA = California production quantity.

Q.US = US production quantity.

V.CA = California value of production.

V.US = US value of production.

EX.Q = Quantity of US exports.

EX.V = Value of US exports.

EX.CA.Q = California export quantity.

EX.CA.V = California export value.

EX.SHARE=% of CA production exported

PROD = California share of national production.

SHARE=CA share of US exports

USITC = United States International Trade Commission online trade database

STATCAN = Statistics Canada online trade database

NASS = USDA, National Agricultural Statistics Service

ERS = USDA, Economic Research Service

ALMONDS: California Export Quantity and Value = EX.Q and EX.V.

Quantity reported on a shelled basis.

(USITC).

APPLES: California Export Value = $0.304 * Q.CA * (EX.V_{fresh} / EX.Q_{fresh}) +$
(CAN_{juice} + CAN_{dried} + PORT.V_{juice} + PORT.V_{dried}).

California Export Quantity = $(0.304 * CA.Q_{fresh}) + PORT.Q_{juice} + PORT.Q_{dried} +$

$(\text{CANjuice} / \text{EX.Vjuice}) * \text{EX.Qjuice} + (\text{CANDried} / \text{EX.Vdried}) * \text{EX.Qdried}$.
Industry sources report 30.4 percent of California fresh production being exported
($\text{EX.SHARE}=30.4\%$). (USITC, STATCAN, and NASS *Non-Citrus Fruit and Nut 1999
Summary*, p. 11).

APRICOTS: California Export Value = $\text{EX.CA.Qfresh} * (\text{EX.Vfresh} / \text{EX.Qfresh}) +$
 $\text{EXVcanned} + \text{EXVdried}$.
California Export Quantity = $(\text{SHARE} * \text{EXQfresh}) + \text{EXQcanned} + \text{EXQdried}$.
California's share of US fresh apricot exports derived from industry sources.
(USITC).

ARTICHOKES: California Export Quantity and Value = EX.Q and EX.V.
(USITC).

ASPARAGUS: California Export Value and Quantity = $\text{SHARE} * \text{Total US Fresh}$
Asparagus Exports.
Export share derived from industry sources. 1995=76%, 1996=80%, 1997=78%,
1998=89%, 1999=89%.
(USITC).

AVOCADOS: California Export Value = $\text{SHARE} * \text{EX.V}$.
California Export Quantity = $\text{SHARE} * \text{EX.Q}$.
California's share of US exports from industry sources: 1998=95%, 1999=95%.
(USITC).

DRY BEANS: California Export Value = $\text{EX.Vlima} + \text{EX.Vblackeye} + (\text{PRODkidney} * \text{EX.Vkidney}) +$
 $(\text{EX.CA.Qdriedbeans} / \text{EX.Qdriedbeans}) * \text{EX.Vdriedbeans}$
California Export Quantity = $\text{EX.Qlima} + \text{EX.Qblackeye} + (\text{PRODkidney} * \text{EX.Qkidney})$
 $+ \text{PRODOther} * (\text{EX.Qdriedbeans} - (\text{EX.Qlima} + \text{EX.Qblackeye} + (\text{PRODkidney} * \text{EX.Qkidney})))$.
Lima and Blackeye bean export shares derived from industry sources: 100% of US
exports. Kidney bean production share derived from NASS and industry sources (% of
California production that is kidney beans: 1995-1997=13.98%, 1998=9.6%):
1995=17.09% , 1996=15.51% , 1997=16.34% , 1998=9.8% , 1999=7.22%. Other bean
production share derived from NASS and industry sources (% of California production
that is other beans: 1995-1997=19.6, 1998=18.8%): 1995=2.02%, 1996=1.87%,
1997=2.40%, 1998=1.41%, 1999=1.85%.
(USITC, and NASS *Crop Production 1999 Summary*, p.41).

BROCCOLI: California Export Value = $\text{EX.CA.Q} * (\text{EX.V} / \text{EX.Q})$.
California Export Quantity = $\text{EX.Q} - (\text{Q.AZ} * \text{U.S.EX.SHARE})$.
U.S.EX.SHARE: 1995-97=16.7%, 1998=16.3%, 1999=16.5%.
(USITC, NASS *Vegetables 1999 Summary*, p. 46).

CARROTS: California Export Value = $\text{CANfresh} + \text{PORT.Vfresh} + (\text{PRODFrozen} * \text{EX.Vfrozen})$.

California Export Quantity = $PORT.Q_{fresh} + (CAN_{fresh}/EX.V_{fresh}) * EX.Q_{fresh} + (EX.Q_{frozen} * PROD_{frozen})$.

Frozen carrot production share derived from NASS: 1995=21.71%, 1996=25.41%, 1997=15.69%, 1998=25.72%, 1999=23.79%.

(STATCAN, USITC, NASS *Vegetables 1999 Summary*, p. 71).

BEEF and PRODUCTS: California Export Value = $EX.CA.Q_{edible} * (PORT.V_{edible} / PORT.Q_{edible}) + EX.V_{live} * SHARE.VALUE_{edible} + EX.V_{noned} * SHARE.VALUE_{edible}$.

California Export Quantity = $(Q.CA_{edible} * EX.SHARE) + SHARE.VALUE_{edible} * EX.Q_{live}$.

Q.CA production converted from live weight using 0.62 lbs. meat per 1 lb. live weight.

$SHARE.VALUE_{edible} = (EX.CA.Q_{edible} * (PORT.V_{edible} / PORT.Q_{edible})) / EX.V_{edible}$. No quantity provided for non-edible exports. Export shares derived from

industry sources.

(USITC, NASS *Livestock Slaughter 1999 Summary*, p.35).

CAULIFLOWER: California Export Value = $CAN_{fresh} + PORT.V_{fresh}$.

California Export Quantity = $PORT.Q_{fresh} + (CAN_{fresh} / EX.V_{fresh}) * EX.Q_{fresh}$.

(STATCAN, USITC).

CELERY: California Export Value = $PROD * EX.V$.

California Export Quantity = $PROD * EX.Q$.

Production share: 1995=91.08%, 1996=90.09%, 1997=91.3%, 1998=93.11%, 1999=93.44%.

(USITC, NASS *Vegetables 1999 Summary*, p. 18).

CHERRIES-SWEET: California Export Value = $(EX.CA.Q / EX.Q_{sweet}) * EX.V_{sweet}$.

California Export Quantity = $EX.CA.Q$.

California production/export data ($EX.CA.Q$) provided by industry sources.

(USITC).

CHICKEN: California Export Value = $(SHARE.broilers * EX.V_{chicken}) + SHARE.broilers * EX.V_{live}$.

California Export Quantity = $(0.05 * Q.CA_{broilers}) + SHARE.broilers * EX.Q_{live}$.

$SHARE.broilers = (EX.CA.Q_{broilers} / EX.Q_{broilers})$. 5% EX. SHARE is an estimate derived from industry sources. Q.CA_{broilers} is converted from live weight to meat with a factor of 0.72. Q.CA_{broilers} is from the Poultry Production and Value Summary.

(USITC, NASS *Poultry Production and Value 1999 Summary*).

COTTON LINT: California Export Value = $(PORT.V_{medium} / PORT.Q_{medium}) * EX.CA.Q_{med} + (PORT.V_{long} / PORT.Q_{long}) * EX.CA.Q_{long} + (EX.CA.Q_{pima} / EX.Q_{pima}) * EX.V_{pima} + (EX.CA.Q_{linters} / EX.Q_{linters}) * EX.V_{linters}$.

California Export Quantity = $Q.CA_{upland} * EX.SHARE * STAPLE.SHARE_{medium} + Q.CA_{upland} * EX.SHARE * STAPLE.SHARE_{long} + PROD * EX.Q_{pima} + ((EX.CA.Q_{long} + EX.CA.Q_{medium} + EX.CA.Q_{pima}) / (EX.Q_{long} + EX.Q_{medium} +$

EX.Qpima) * EX.Qlinters

California Pima production share from NASS: 1995=61%, 1996=71%, 1997=78%, 1998=80%, 1999=87.6%.

Staple length shares provided by industry sources: 1995: Medium=38%, long=62%, 1996: medium=40%, long=60%, 1997: medium=55%, long=45%, 1998: medium=45%, long=55%, 1999: medium=48%, long=52%.

Upland export share (EX.SHARE) provided by industry sources: 1995-1997=85%, 1998=80%, 1999=83%. EX.Qpima is from monthly ERS Situation and Outlook reports. (USITC, NASS, ERS *Cotton and Wool Outlook*, Monthly Reports).

COTTONSEED: California Export Value = PORT.Voil.

California Export Quantity = PORT.Qoil.

(USITC).

DATES: California Export Quantity and Value = EX.Q and EX.V.

(USITC).

EGGS: California Export Value = (EX.CA.Qeggs / EX.Qeggs) * EX.Veggs.

California Export Quantity = EX.SHARE * Q.CAeggs.

Export share is an estimate derived from industry sources: 1995-1997=1.8%, 1998=1.43%, 1999=1.7%

(USITC, NASS *Chickens and Eggs 1999 Summary*).

FIGS: California Export Quantity and Value = EX.Q and EX.V.

(USITC).

FLOWERS AND NURSERY: California Export Value = 0.003*V.CA Nursery Products + 0.05*V.CA Flowers and Foliage.

California Export Quantity = no export quantity provided for Flowers and Nursery.

Export shares derived from industry sources. V.CA Flowers and Foliage from NASS Floriculture Crops Annual Summary. $V.CA_t$ Nursery Products = $V.CA_{t-1}$ Nursery Products * $\{1 + [(V.CA_t \text{ Flowers and Foliage} - V.CA_{t-1} \text{ Flowers and Foliage}) / V.CA_{t-1} \text{ Flowers and Foliage}]\}$. $V.CA_{t-1}$ Nursery Products from CDFR Agricultural Resource Directory.

(USITC, NASS *Floriculture Crops 1999 Summary p. 7*, CDFR *Agricultural Resource Directory 1999*).

GARLIC: California Export Quantity and Value = EX.Q and EX.V.

(USITC).

GRAPES, TABLE: California Export Value = SHARE * EX.V + 0.18 * EX.Vmix.

California Export Quantity = SHARE * EX.Q + 0.18 * EX.Qmix.

California's share of US exports derived from industry sources: 1998=99.5% 1999=99.5%. EX.Qmix and EX.Vmix are canned mixed fruit. Canned mixed fruit contains a minimum of 18 percent grapes.

(USITC).

GRAPES, RAISINS: California Export Quantity and Value = EX.Q and EX.V.
(USITC).

GRAPES, JUICE: California Export Value = CANjuice + PORT.Vjuice.
California Export Quantity = PORT.Qjuice + (CANjuice / EX.Vjuice) * EX.Qjuice.
(USITC, STATCAN).

WINE: California Export Value = PROD * EX.V.
California Export Quantity = PROD * EX.Q.
Production share derived from NASS: 1995=95.02%, 1996=95.74%, 1997=96.12%,
1998= 95.5%, 1999=95.1%.
(USITC, NASS *Non-Citrus Fruit and Nut 1999 Summary*, p.41).

GRAPEFRUIT: California Export Value = CANfresh + PORT.Vfresh + CANjuice +
PORT.Vjuice.
California Export Quantity = PORT.Qfresh + PORT.Qjuice + (CANfresh / EX.Vfresh) *
EX.Qfresh + (CANjuice / EX.Vjuice) * EX.Qjuice.
(USITC, STATCAN).

HAY, ALL: California Export Value = (EX.CA.Qall / EX.Qall) * EX.V.
California Export Quantity = Q.CAall * EX.SHARE.
Export share derived from industry sources: 1995-97=10%, 1998=7%, 1999=7%.
The following commodities are included as hay: alfalfa cubes; alfalfa meals; alfalfa hay;
hay, nes; and rutabagas, vetches, etc.
(USITC, NASS *Agricultural Production 1999 Summary*).

KIWI: California Export Quantity and Value = EX.Q and EX.V.
(USITC).

LEMONS: California Export Value = SHARE * EX.Vfresh + SHARE * EX.Vjuice.
California Export Quantity = SHARE * EX.Qfresh + SHARE * EX.Qjuice.
Export share derived from industry sources: 90%.
(USITC).

LETTUCE, ALL: California Export Value = (EX.CA.Qhead / EX.Qhead) * EX.Vhead +
(EX.CA.Qother / EX.Qother) * EX.Vother.
California Export Quantity = EX.Qhead - (Q.AZhead * U.S.EX.SHAREhead) -
(Q.AZother * U.S.EX.SHAREother).
U.S. Export share for head lettuce 1998=6%, 1999=4.9%, U.S.Export share for other
lettuce: 1995-97=13%, 1998=12.5%, 1999=13.7%)
(USITC, NASS *Vegetables 1999 Summary*, p. 27-30).

MILK AND CREAM: California Export Value = (EX.CA.Q / EX.Q) * EX.V.
California Export Quantity = DRIED + BUTTER + SOFT/FROZEN + PRODfluid *
CHEESE + PRODfluid * WHEY + PRODfluid * EX.Q condensed + PRODfluid *

EX.Qother. EX.Q and EX.V for dried milk, cheese, whey, soft/frozen and butter from US Dairy Export Council. EX.Q and EX.V for condensed milk from USITC. DRIED, BUTTER, and SOFT/FROZEN are estimates from industry sources. California share of national production of fluid milk (PROD fluid): 1995=16%, 1996=17%, 1997=17%, 1998=18%, 1999=18.7%.

(USITC, United States Dairy Export Council online data [<http://www.usdec.org/>]).

MELONS: California Export Value = CANcant&honey + CANwater + PORT.Vcant + PORT.Vhoney + PORT.Vwater.

California Export Quantity = PORT.Qcant + PORT.Qhoney + PORT.Qwater + (CANcant&honey / EX.Vcant&honey) * EX.Qcant + (CANwater / EX.Vwater) * EX.Qwater.

(USITC, STATCAN).

MUSHROOMS: California Export Value = CANfresh + PORT.Vfresh + CANDried + PORT.Vdried + CANprep + PORT.Vprep.

California Export Quantity = PORT.Qfresh + PORT.Qdried + PORT.Qprep + (CANfresh / EX.Vfresh) * EX.Qfresh + (CANDried / EX.Vdried) * EX.Qdried + (CANprep / EX.Vprep) * EX.Qprep.

(USITC, STATCAN).

OLIVES: California Export Quantity and Value = EX.Q and EX.V.

(USITC).

ONIONS: California Export Value = PROD * EX.V.

California Export Quantity = PROD * EX.Q.

Production share derived from NASS: 1995=24.86%, 1996=26.13%, 1997=24.99%, 1998=24.86%. 1999=25.85%

(USITC, NASS *Vegetables 1999 Summary*, p.33).

ORANGES: California Export Value = CANfresh + PORT.Vfresh + CANjuice + PORT.Vjuice + PORT.Vpellets + (PORT.Vpellets/EX.Vpellets) * EX.Voil

California Export Quantity = PORT.Qfresh + PORT.Qjuice + PORT.Qpellets + (CANfresh / EX.Vfresh) * EX.Qfresh + (CANjuice / EX.Vjuice) * EX.Qjuice + (PORT.Qpellets/EX.Qpellets) * EX.Qoil

(USITC, STATCAN).

PEACHES/NECTARINES: California Export Value = CANfresh + PORT.Vfresh + EX.Vcanned + 0.39 * EX.Vmix.

California Export Quantity = PORT.Qfresh + EX.Qcanned + (CANfresh / EX.Vfresh) * EX.Qfresh + 0.39 * EX.Qmix.

EX.Qmix and EX.Vmix are canned mixed fruit. Canned mixed fruit contains a minimum of 39 percent peaches.

(USITC, STATCAN).

PEARS: California Export Value = (EX.CA.Qfresh / EX.Qfresh) * EX.Vfresh +

$CAN_{proc} + PORT.V_{proc} + 0.35 * EX.V_{mix}$.
California Export Quantity = $EX.CA.Q_{fresh} + PORT.Q_{proc} + (CAN_{proc} / EX.V_{proc}) * EX.Q_{proc} + 0.35 * EX.Q_{mix}$.
Fresh pear export quantity ($EX.CA.Q_{fresh}$) provided by industry sources. $EX.Q_{mix}$ and $EX.V_{mix}$ are canned mixed fruit. Canned mixed fruit contains a minimum 35 percent pears.
(USITC, STATCAN).

PEPPERS: California Export Value = $(PROD_{may} * EX.V_{may}) + (PROD_{june} * EX.V_{june}) + (PROD_{july} * EX.V_{july}) + (PROD_{aug} * EX.V_{aug}) + (PROD_{sept} * EX.V_{sept}) + (PROD_{oct} * EX.V_{oct}) + (PROD_{nov} * EX.V_{nov}) + (PROD_{dec} * EX.V_{dec})$.
California Export Quantity = $(PROD_{may} * EX.Q_{may}) + (PROD_{june} * EX.Q_{june}) + (PROD_{july} * EX.Q_{july}) + (PROD_{aug} * EX.Q_{aug}) + (PROD_{sept} * EX.Q_{sept}) + (PROD_{oct} * EX.Q_{oct}) + (PROD_{nov} * EX.Q_{nov}) + (PROD_{dec} * EX.Q_{dec})$.
Monthly share of production derived from industry sources: May=9.3%, June=12.6%, July=17.4%, August=24.2%, September=29%, October=40.2%, November=36.6%, December=12.4%.
(USITC).

PISTACHIOS: California Export Value = $EX.V$.
California Export Quantity = $EX.Q$.
(USITC).

PLUMS: California Export Value = $SHARE * EX.V$.
California Export Quantity = $SHARE * EX.Q$.
Export share derived from industry sources: 1998=98%, 1999= 98%
(USITC).

POTATOES: California Export Value = $(EX.CA.Q_{fresh} / EX.Q_{fresh}) * EX.V_{fresh}$.
California Export Quantity = $EX.SHARE * Q.CA_{fresh}$.
Export share provided by industry sources: 1995-1997=2.5% and 1998=3% 1999=1.5%.
(USITC).

PRUNES: California Export Quantity and Value = $EX.Q$ and $EX.V$.
(USITC).

RICE: California Export Value = $EX.V_{short\ grain} + PORT.V_{med\ grain} + San\ Francisco\ Port\ District\ value\ of\ long\ grain$.
California Export Quantity = $EX.Q_{short\ grain} + PORT.Q_{med\ grain} + San\ Francisco\ Port\ District\ export\ quantity\ of\ long\ grain$.
(USITC).

STRAWBERRIES: California Export Value = $PROD * EX.V$.
California Export Quantity = $PROD * EX.Q$.
Production share derived from NASS: 1995-1997=90%, 1998=92%, 1999=93.2%.
(not including Winter FL strawberries which are not exported).

(USITC, NASS *Vegetables 1999 Summary*, p.53).

TOMATOES, FRESH: California Export Value = EX.CA.Vfresh.

California Export Quantity = EX.CA.Qfresh.

During California's export months (as identified by industry sources), attribute all EX.Q and EX.V to California.

(USITC).

TOMATOES, PROCESSED: California Export Value = PROD * EX.V.

California Export Quantity = PROD * EX.Q.

Share of production derived from NASS: 1995=94%, 1996=93%, 1997=94%, 1998=94.7% 1999=95.4%. Commodities included in Processed Tomatoes: Whole, pieces canned; tomato paste; prep/pres, nes; ketchup; tomato sauces; tomato juice.

(USITC, NASS *Vegetables 1999 Summary*, p.82).

TURKEY: California Export Value = PROD * EX.V.

California Export Quantity = PROD * EX.Q.

Share of production derived from NASS: 1995-1997=6.8% and 1998=6.3% 1999=6.2%.

(USITC, NASS *Poultry Production and Value 1999 Summary*).

WALNUTS: California Export Quantity and Value = EX.Q and EX.V.

(USITC).

WHEAT: California Export Value = (EX.CA.Q / EX.Q) * EX.V.

California Export Quantity = EX.CA.Q.

Export quantity (EX.CA.Q) provided by industry sources.

(USITC).