

## 3407. CITRUS TRISTEZA VIRUS

### State Interior Quarantine

A quarantine is established against the following pest, its hosts and possible carriers:

**A. Pest.** All strains of the citrus tristeza virus.

**B. Quarantine Area.** That portion of the State which is known to be generally infected with citrus tristeza virus and where no significant efforts to control or suppress the disease are conducted. The quarantine area is the counties of Orange and Ventura, and portions of Los Angeles, Riverside, San Bernardino, San Diego, and Santa Barbara counties as follows:

**1. Los Angeles County.** That portion of Los Angeles County lying south of a line drawn as follows: Beginning at the point where the north boundary of Township 4 north intersects the west county boundary line; then east along the north boundary of Township 4 north to its intersection with State Highway 14; then southerly along a straight line drawn to Mendenhall Peak lookout; then southeasterly along a straight line drawn to the point where the north boundary of Township 2 north intersects the Big Tujunga Wash; then east along the north boundary of Township 2 north to the east county boundary line. (All township and range lines are S.B.B.M.)

**2. Riverside County.** That portion of Riverside County lying west of a line drawn as follows: Beginning at the point on the north Riverside County boundary line where the San Bernardino Meridian intersects said boundary line; then, continuing southerly along said meridian to the south Riverside County boundary line.

**3. San Bernardino County.** That portion of San Bernardino County lying west of a line drawn as follows: Beginning at the point where the north boundary of Township 2 North, SBM, intersects the west San Bernardino County boundary line; then east along the north boundary of Township 2 North to its point of intersection with the east boundary of Range 6 West; then southeasterly along an imaginary line to the crest of Mount San Bernardino; then southeasterly to the point on the south San Bernardino County boundary line where an imaginary line from the crest of Mount San Bernardino to the crest of Baldy Mountain (in Riverside County) intersects said boundary line.

**4. San Diego County.** That portion of San Diego County lying west of the east boundary of Range 2 East, SBM.

**5. Santa Barbara County.** That portion of Santa Barbara County lying south of a line drawn as follows: Beginning at the Point Arguello lighthouse; then easterly along an imaginary line to the summit of El Tranquillon Mountain; then southeasterly along an imaginary line to the point of intersection of Jalama Creek and Escondido Creek; then easterly along an imaginary line to the point of intersection of Gaviota Creek and the summit of the Santa Ynez Range; then easterly along the summit of the Santa Ynez Range to the east Santa Barbara County boundary line.

**C. Suppressive Area.** The suppressive area is that portion of the State in which the citrus tristeza virus has been detected, in which a pest control district has been established, and where an active control or suppression program is being conducted. The suppressive area is the county of Kern and portions of Fresno, Tulare, and Riverside counties as follows:

**1. Fresno County.** That portion of Fresno County known as the Central Valley Pest Control District bounded by a line drawn as follows: Beginning at the intersection of the Kings River and the Fresno-Tulare County line; then, northerly and northeasterly along said river to the Pine Flat Reservoir; then, northeasterly along the southern edge of said reservoir to the South Fork of the Kings River; then, easterly along said river to its intersection with the western boundary of the Kings Canyon National Park; then, southeasterly and southerly along said boundary to its intersection with the Fresno-Tulare County line; then westerly and southerly along said county line to the point of beginning.

**2. Tulare County.** That portion of Tulare county known as the Southern Tulare County Citrus Pest Control District bounded by a line drawn as follows: Beginning at the intersection of the Tulare-Kings County line and northwest corner of Section 7, Township 21 South, Range 23 East; then, east along section lines to the northeast corner of Section 8, Township 21 South, Range 27 East; then, south one-half mile along the section line to its intersection with the south line of the north half of Section 9, Township 21 South, Range 27 East; then, east along said line to the northwest corner of the northeast quarter of the southeast quarter of Section 10 Township 21 South, Range 27 East; then, south along an imaginary line to the northwest corner of the southeast quarter of the southeast quarter of said Section 10; then, east along an imaginary line to the northeast corner of the southeast quarter of the southeast quarter of said Section 10; then, south along an imaginary line to the southwest corner of Section 11, Township 21 South, Range 27 East; then, east along the south line of Sections 11 and 12, Township 21 South, Range 27 East; then, east along the south line of Sections 7 and 8, Township 21 South, Range 28 East to the southeast corner of Section 8, Township 21 South, Range 28 East; then, north two miles along an imaginary line to the 5<sup>th</sup> Standard Parallel South; then, east along said parallel to the Tulare-Inyo County line; then, southerly along said county line to its intersection with the Tulare-Kern County line; then westerly along the Tulare-Kern County line to its intersection with the Tulare-Kings County line; then, northerly along the Tulare-Kings County line to the point of beginning (all locations are Mt. Diablo Base and Meridian).

**3. Riverside County.** That portion of Riverside County known as the Coachella Valley and bounded by a line drawn as follows: Beginning at the intersection of the northwest corner of T.2S., R.4E., S.B.B. & M. and the Riverside County Line; then, easterly along said

county line to its intersection with the northeast corner of T.2S., R.12E., S.B.B. & M.; then southerly from said intersection along range line 12E. to its intersection with the Riverside County Line; then, westerly along said county line to its intersection with the southwest corner of T.8S., R.4E., S.B.B. & M.; then, northerly from said intersection along range line 4E. to the point of beginning.

**D. Regulated Area.** The regulated area is that portion of the State in which the citrus tristeza virus may occur but which is not generally infected and where efforts to control or suppress the disease may be conducted. The regulated area is all areas of California not described as a quarantine or suppressive area

**E. Articles and Commodities Covered.**

1. All plants and propagative parts (except seed), including all subspecies, variety, or ornamental form, of the genera *Citrus* (true citrus), *Fortunella* (kumquat), *Poncirus* (trifoliate orange),
2. **All plants and propagative parts (except seed), including any subspecies variety or ornamental form of the genera** *Aeglopsis* (dwarf powder-flask fruit), and *Afraegle* (African powder-flask fruit), *Atalantia*, *Citropsis*, *Clausena*, *Clymenia*, *Eremocitrus*, *Hesperethusa*, *Merrillia*, *Microcitrus*, *Pleiospermium*, *Severinia*, *Swinglea*, and of any hybrid having at least one ancestor of *Citrus*, *Fortunella*, or *Poncirus*, are declared to be hosts or possible carriers of the pest.

**F. Restrictions.**

**1. Moving permits for articles and commodities covered in (E)(1).**

- a. The agricultural commissioner at origin may issue permits authorizing the movement of propagative parts from field-grown source trees until January 1, 2012 and from field-grown nursery increase blocks until January 1, 2013.
- b. Propagative parts from registered source or registered increase trees that are maintained in departmentally approved insect-resistant structures and that meet the record-keeping requirements in Section 3701.2 (a)(9), Title 3, California Code of Regulations may be moved within the state without a moving permit.
- c. The agricultural commissioner at origin may issue moving permits for movement throughout the state for trees produced from buds, cuttings, or scions taken from registered source or registered increase trees as described in subsection (b), provided the following requirements are met:
  1. The trees were propagated and continuously maintained within a departmentally approved insect-resistant structure.
  2. The nursery maintains records of the source of the vegetative propagative

material and the progeny trees in the nursery produced therefrom for five years after production. The records shall be made available for review by the county agricultural commissioner during normal business hours.

- d. The agricultural commissioner at origin may issue permits authorizing the movement of trees other than as described in subsection (c) provided that the nursery maintains records of the source of the vegetative propagative material and the progeny trees in the nursery produced therefrom for five years after production. The records shall be made available for review by the county agricultural commissioner during normal business hours.

**2. Conditions of Movement.** Unless accompanied by a moving permit or under a cutting permit as hereinafter provided, articles and commodities covered shall not be transported or moved, **except as provided in subsection (F)(1)(b) and (c):**

- a. From the quarantine area except to another portion of the quarantine area or except when authorized under permit as provided in paragraphs (8) and (9).
- b. From the regulated area except to another portion of the regulated area or to the quarantine area or under permit to the suppressive area as provided in paragraph (4).
- c. From the suppressive area except to the quarantine area, to another portion of the suppressive area under permit as provided in paragraphs (4) and (6), or under permit to the regulated area as provided in paragraph (4).

**3. Propagation of Articles and Commodities Covered in this Section.** All buds, cuttings, and scions used in the propagation of trees described in subsection (E)(2) shall be taken from source trees which have been tested to the satisfaction of the department and found free from tristeza. No buds, cuttings, or scions from untested or tristeza infected source trees may be used for propagation of articles and commodities covered in this section. Records shall be maintained of each source tree, the quantity of propagative material taken from each source tree, and the progeny trees in the nursery produced therefrom for five years after production. The records shall be made available for review by the county agricultural commissioner during normal business hours.

**4. Moving Permits for Movement into, within, or from the Suppressive Area.** Except as provided in subsection (F)(1)(b) and (c), the agricultural commissioner at origin may issue moving permits authorizing movement of articles and commodities covered into, within, or from the suppressive area provided that the articles and commodities have been tested for tristeza to the satisfaction of the department and no evidence of tristeza was found, or all buds, cuttings, scions or top-worked trees used in the production of the trees, or being moved as such are from source trees or trees in a nursery increase block

which have been so tested.

5. **Record of Tested Source Trees and Trees Produced From Nursery Increase Blocks.** In order that trees produced from buds, cuttings, or scions taken from tristeza tested source trees or nursery increase blocks may later be moved under a moving permit in accordance with paragraph (4), the agricultural commissioner shall cause a record to be kept of each source tree **listed in subsection (E)(2)**; the kind and amount of buds, cuttings, or scions taken from each source tree; and the kind, number, and location in the nursery of the progeny trees produced therefrom for five years after production.

6. **Cutting Permit Required for Taking or Moving Budwood Within the Suppressive Area.** No buds, cuttings, or scions of host trees described in subsection (E)(2) shall be cut or otherwise taken from such trees within the suppressive area or moved within or from any such area for propagation, unless a cutting permit has been secured from the agricultural commissioner prior to cutting or taking or moving same. Cutting permits may be issued within the suppressive area provided the source tree has been tested for tristeza to the satisfaction of the department and no evidence of tristeza was found. Such a cutting permit shall set forth the amount and kind of buds, cuttings, and scions in the shipment accompanied thereby and the name and address of the consignee.

7. **The issuance of cutting permits for host trees listed in subsection (E)(2) and moving permits, except as provided in subsection (F)(1)(b) and (c), under the terms of this regulation also applies to nursery increase blocks.** Nursery increase block means a planting of citrus nursery stock propagated using budwood and/or scionwood from trees which have been tested for tristeza to the satisfaction of the department. Top-worked trees may qualify as nursery increase blocks provided that they are tested to the satisfaction of the department and found free of tristeza. The county agricultural commissioner at origin may approve such nursery or top-worked trees, which do not exceed 18 months from time of budding, to be used as a supplementary source of buds, cuttings or scions. The agricultural commissioner shall cause a record to be kept as provided in paragraph (5).

8. **Permits Involving Movement into or through the Regulated Area for Fumigation. Except as provided in subsection (F)(1)(b) and (c),** the agricultural commissioner may issue permits authorizing the movement of articles and commodities covered from the quarantine area into or through the regulated area for fumigation and prompt return to the quarantine area. The articles and commodities shall be treated for tristeza vector elimination immediately prior to such movement in a manner approved by the department and shall be moved in wrapped bales, bundles, or closed containers in a closed conveyance. Such permits shall be valid for only the time specified in the permit and shall not authorize the articles and commodities to remain outside the quarantine area longer than 48 hours.

9. **Movement in Transit through the Quarantine Area.**

Articles and commodities covered originating outside

of the quarantine area may be moved through such area without delay or diversion in wrapped bales, bundles, or closed containers, or in a closed conveyance into which no other articles and commodities covered are placed while within the quarantine area.

#### DEFINITION OF THE TERM "TESTED TO THE SATISFACTION OF THE DEPARTMENT" as referenced in Sections F3, F4, F6, F7

##### APPENDIX A

07-29-11

The method of testing which meets the minimum standards of the **Department as referenced in Sections F3, F4, F6, F7** is as follows:

#### Nursery Increase Block

To use nursery increase block including top-worked trees as a supplemental source of propagative materials until 24 months from time of budding, the trees shall be tested using the Elisa Test Procedure at 12 months from time of budding.

#### Top-Worked Trees

To use top-worked trees as a source of budwood, the top-worked trees shall be tested before and after budding using either the Elisa or Mexican Lime Indexing Test Procedure. The source trees for the propagative stock used shall be tested prior to top-working using either procedure. The tests shall be conducted within one year of the top working and annually thereafter if used as a source of propagative material.

#### All Other Source Trees

All other trees used as a source for propagative material shall be tested annually using either the Elisa or Mexican Lime Indexing Test Procedure.

#### ELISA TEST PROCEDURE

1. The tests are to be conducted and results confirmed by employees of the California Department of Food and Agriculture, the University of California or the United States Department of Agriculture; or other personnel under their supervision, who are qualified by experience and training to conduct such tests, and to confirm the results.
2. The plant tissues (budsticks or leaf petioles) to be used for the test are to be selected such that each of the four quadrants of the candidate tree is represented in the test.
3. The tissue is to be prepared and the ELISA test performed according to accepted procedures.
4. Appropriate positive and negative controls are to be run on each plate.
5. A minimum of two wells shall be run for each test.

6. Antisera used for ELISA testing shall be from tested and approved sources.

#### MEXICAN LIME INDEXING TEST PROCEDURE

1. The tests are to be conducted and results confirmed by employees of the California Department of Food and Agriculture, the University of California, or the United States Department of Agriculture; or other personnel under their supervision, who are qualified by experience and training to conduct such tests and confirm the results.
2. The buds, tissues, or grafts to be placed in the indicators are to be selected such that each of the four quadrants of the candidate tree is represented in the test.
3. Four healthy, young, and actively growing Mexican lime plants are to be used as tristeza indicators for each candidate tree.
4. Buds, tissues, or grafts from the candidate are to be joined to each of the four Mexican lime indicator plants.
5. There must be a union of the scion and rootstock tissue as evidenced by survival of the scion material for at least 30 days after being placed on the indicator.
6. Observations of the Mexican lime foliage are to be made at least monthly for symptoms associated with the virus.
7. The index test plants must be maintained in a regulated environment, free of insects, and must remain in an active normal state of growth.
8. The index plants must be maintained for at least six months after inoculation unless they have exhibited symptoms of tristeza at an earlier date.
9. Six months after inoculation, the Mexican lime indicator plants, which have not previously been discarded because of tristeza, shall be examined for stem-pitting symptoms by removing the bark.
10. Any index test, which is not, for any reason, adequate to show tristeza infection during the course of the test, must be repeated.

Upon receipt of written notification that the tests have been conducted in the approved manner for specified trees and have been negative for tristeza, the commissioner of the county in which the trees tested are located may issue cutting or moving permits for propagative materials removed from the source trees.

#### VARIETIES AND GENERA OF NEAR-RELATED PLANTS AND HYBRIDS WITH CITRUS, FORTUNELLA, OR PONCIRUS PARENTAGE BELIEVED TO BE HOSTS OR POSSIBLE CARRIERS OF QUICK DECLINE (TRISTEZA) VIRUS

##### I APPENDIX B

11-17-68

Reference: The Citrus Industry, Vol. I, 1968, edited by Reuther, Batchelor, and Webber: Chapter 3, The Botany of Citrus and Its Wild Relatives by W. T. Swingle, revised by P. C. Reece; and Chapter 4, Horticultural Varieties of Citrus by R. W.

Hodgson, University of California Division of Agricultural Sciences, Berkeley.

**NOTE:** No attempt has been made to list varieties and species belonging to the genera *Citrus*, *Fortunella*, and *Poncirus* included in the above reference on pages 328-588.

Alemow (*Citrus macrophylla*) - (*C. celebica*? x *C. grandis*)

Amongpong (*C. celebica*? x *C. macroptera*? or *C. hystrix*?)

Calamondin (*orangequat*?) (*C. reticulata* var. *austera*? x *Fortunella* sp.)

Cicitranges (*Citrang* x *Poncirus trifoliata*)

Citradia (*P. trifoliata* x *C. aurantium*)

Citrang (*P. trifoliata* x *C. sinensis*) (var. - Morton, Coleman, Salvage, Willits, Cunningham, Rustic, Rusk, Saunders, Troyer, Carrizo, etc.)

Citrangedin (*Citrang* x (*Fortunella* x *citrus*)) c. calamondin

Citrangquat (*Fortunella* sp. x (*C. sinensis* x *P. trifoliata*)) (Thomasville, Telfair, Sinton)

Citrangeremo ((*P. trifoliata* x *C. sinensis*) x *Eremocitrus glauca*)

Citrangor (*Citrang* x *C. sinensis*)

Citrandarin (*P. trifoliata* x *C. reticulata*)

Citremon (*P. trifoliata* x *X. limon*)

Citrumelo (*P. trifoliata* x *C. paradisi*)

Citrumquat (*P. trifoliata* x *F. japonica* or *F. margarita*)

Eremolemon (*Eremocitrus glauca* x *C. limon* 'Meyer lemon')

Eremorange (*E. glauca* x *C. sinensis*)

Eremoradia (*E. glauca* x *C. aurantium*)

Fastrimedin (*Microcitrus australasica* x *Fortunella* sp. x *C. reticulata* 'Calamondin')

Hyonkan (?) (. *ichangensis* x *C. reticulata* cv. satsuma group)

Ichandarin (*C. ichangensis* x *C. reticulata* cv. satsuma group)

Ichang lemon (See Shangyuan)

Kapuyao (*C. celebica* ? x ?)

Kansi (*C. macroptera* ? x *C. grandis*?)

Lemandarin (*C. limon* x *C. reticulata*) ("Otaheite orange," "red lemon", "white lemon"?)

Lemonange (?) (*C. limon* x *C. sinensis*) ("Meyer lemon"?)

Lemonime (*C. limon* x *C. aurantifolia*) ("Perrine lemon"?)

Lemon Martin (*C. hystrix*? x *C. limon*)

Limequat (*C. aurantifolia* x *Fortunella* sp.) (Var. - Eustis, Lakeland, Travares)

Meyer lemon (See lemonange)

Moli kurikuri hybrid (*C. macroptera* x *C. grandis*?)

Nansho daidai (?) (*C. aurantium* x ?) - *C. taiwanica*

Orangequat (*C. reticulata* c. *satsuma* x (*F. japonica* x *F. margarita* 'Meiwa'))

Procimequat (*C. aurantifolia* 'Mexican' x *F. japonica* x *F. hindsii*)

Protocitrus - subgenus of *Fortunella*

Segentrage (*P. trifoliata* x *C. sinensis* F<sub>2</sub>) (Var. - Helps and Sanford)

Shangyuan, or Ichang lemon (*C. ichangensis* x *C. grandis*)

Shekwasha (*C. depressa*) (also spelled Sheequasha, Skiikuwasha, Sekwasa, or Seequassis)

Tangelo (*C. paradisi* x *C. reticulata*) var. Clement, Yalaha, Lake, Minneola, Nacotee, Sampson, San Jacinto, Seminole, Thornton, Ugli, Wekiwa, Williams, etc.)

Tangor (*C. reticulata* x *C. sinensis*) (Umatilla, Temple, King, etc.)

Tetraploid calamondin (*F. hindsii*)

Webber's Philippine hybrid (*C. macroptera* x *C. reticulata*?)

Yama-mikan? ("Mountain mandarin")

Yuzu (*C. reticulata* var. *austera*? x *C. ichangensis*)

## ARIZONA CITRUS TREES

### I APPENDIX C

01-29-70

Arizona citrus trees are eligible for planting in protected suppressive areas (See Section 3630) in California providing the trees were produced from certified scions in Arizona where natural spread of tristeza disease is not known to occur and that the trees were produced in a "certified block" that was inspected at least once each year.

## 3628. DEFINITIONS

### I APPENDIX D

03-27-07

1. "Improved Meyer lemon" means clones of the Meyer lemons designated as Citrus Variety Improvement Numbers 319 and 333 which the Director under the authority of Section **5802** of the California Food and Agricultural Code has determined to be free from infections of virus or mycoplasma-like diseases dangerous or detrimental to the production of commercial or ornamental citrus fruit or plants.
2. "Meyer lemon plant" as referred to in this section excludes all improved Meyer lemon plants as defined above, but otherwise includes:
  - a. Any plant which consists entirely or partly of Meyer lemon plant tissue or
  - b. Any plant to which Meyer lemon plant tissue has been joined at any time by any method of grafting.
3. "Virus free" as used in this group means plants free of the tristeza virus or complexes of the tristeza virus as determined by inspection or, in case of dispute, by index testing, or by other recognized laboratory procedures as set forth in regulations of the department.
4. "Sell" includes offer for sale, expose for sale, possess for sale, exchange, barter, or trade.
5. "Propagation" means to reproduce or multiply a plant by any asexual method.

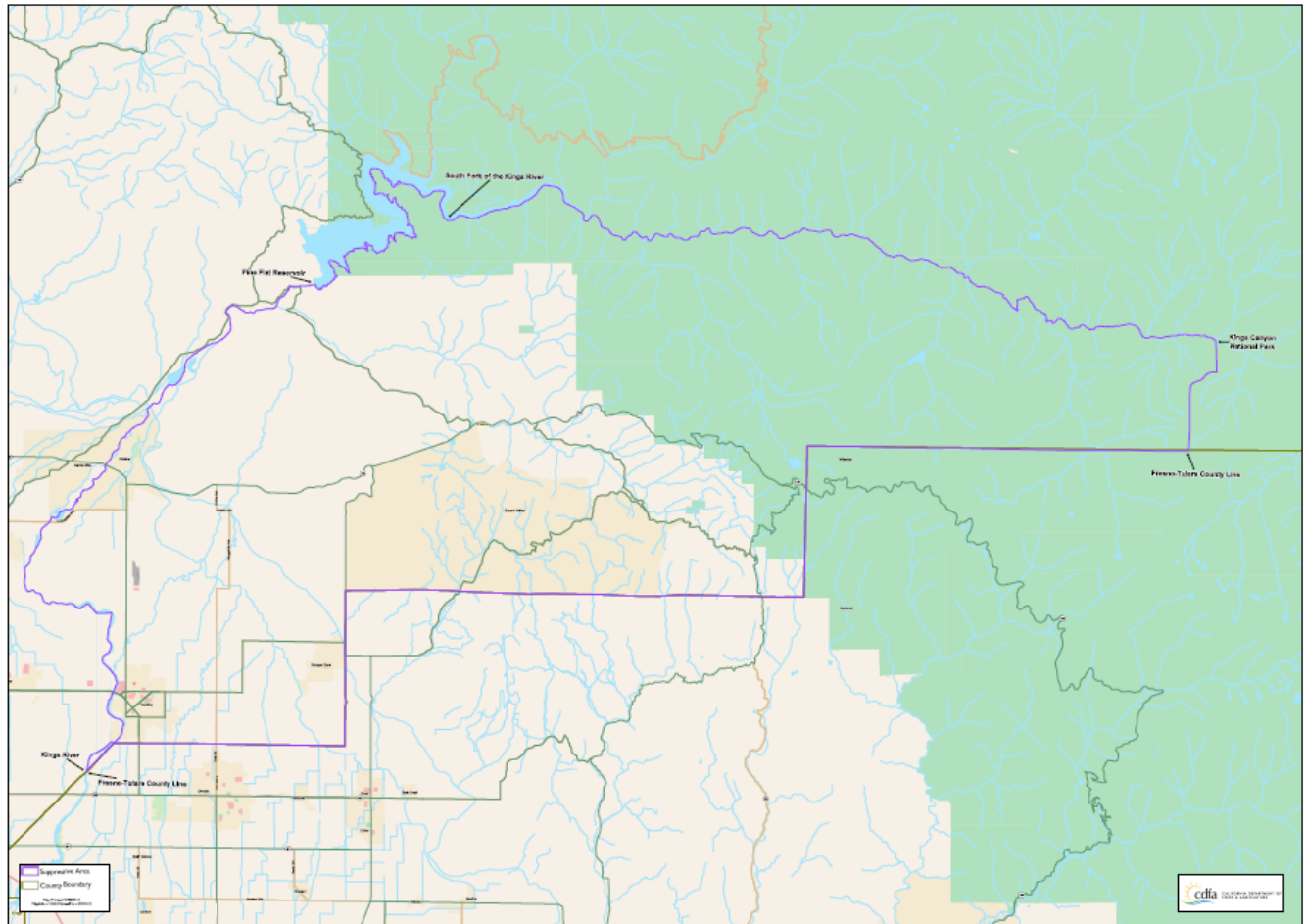
## 3629. Meyer Lemon Plants Prohibited.

**1. Propagation and/or Sale.** The propagation and/or sale of Meyer lemon plants is prohibited except under permit from the director for scientific and research purposes.

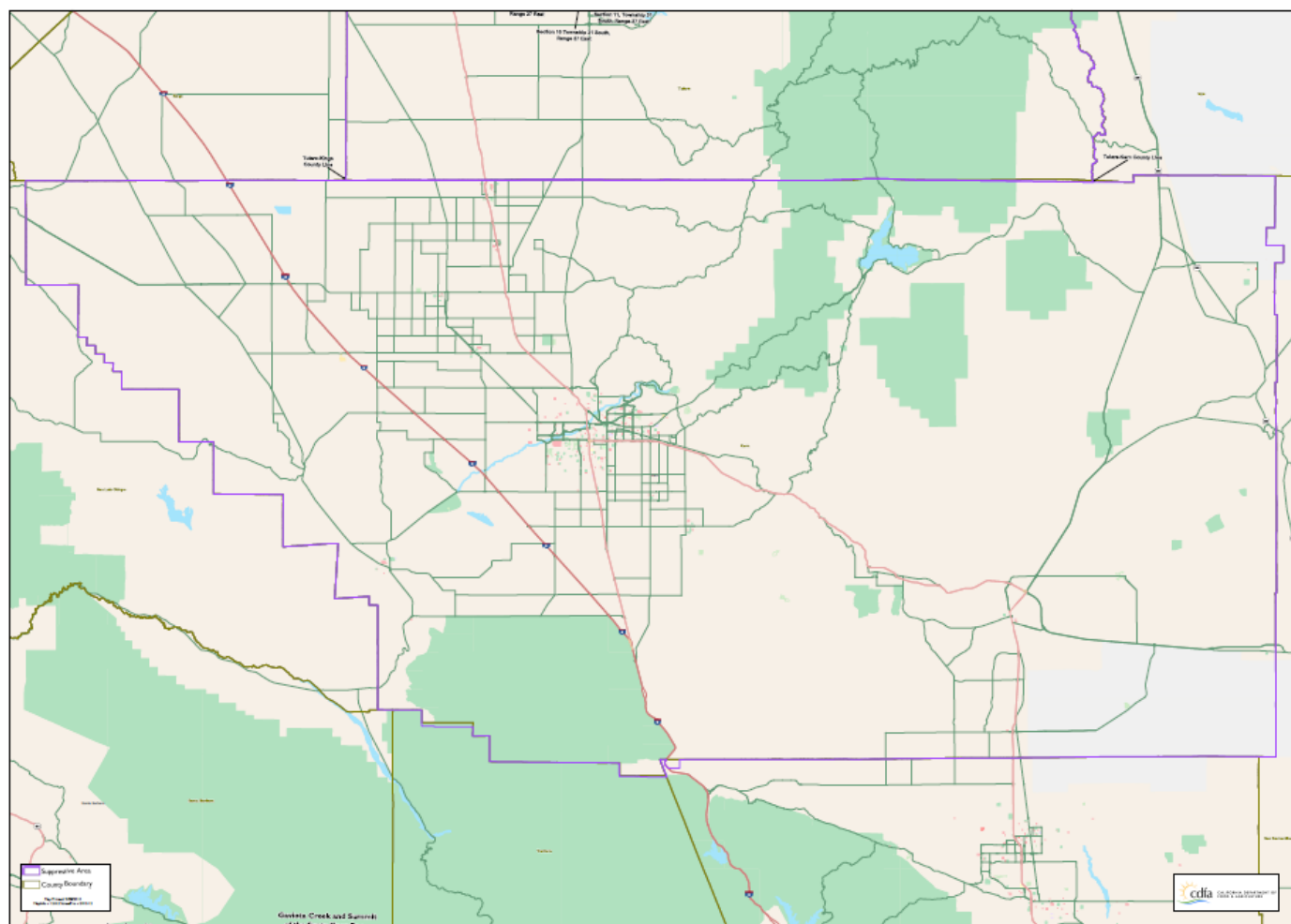
**2. Declaration of Nuisance and Abatement.** All Meyer lemon plants are declared to be a public nuisance subject to all laws and remedies relating to the prevention and abatement of nuisances. The Secretary or the county agricultural commissioner acting under the supervision and direction of the director may take such action including removal and destruction with reference to such nuisance as is provided by law.



**Citrus Tristeza Virus (CTV)  
Fresno County**

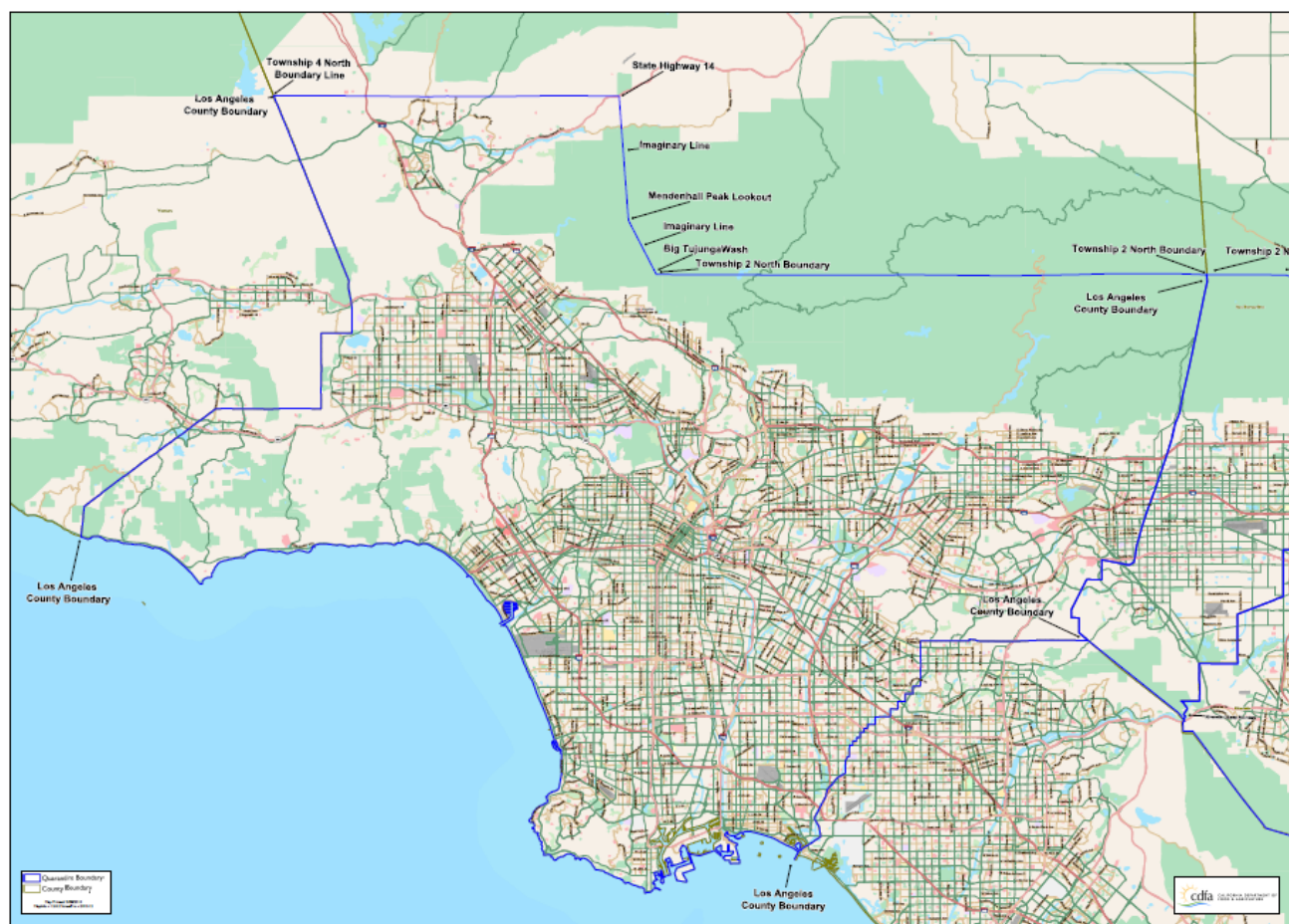


**Citrus Tristeza Virus (CTV)  
Kern County**

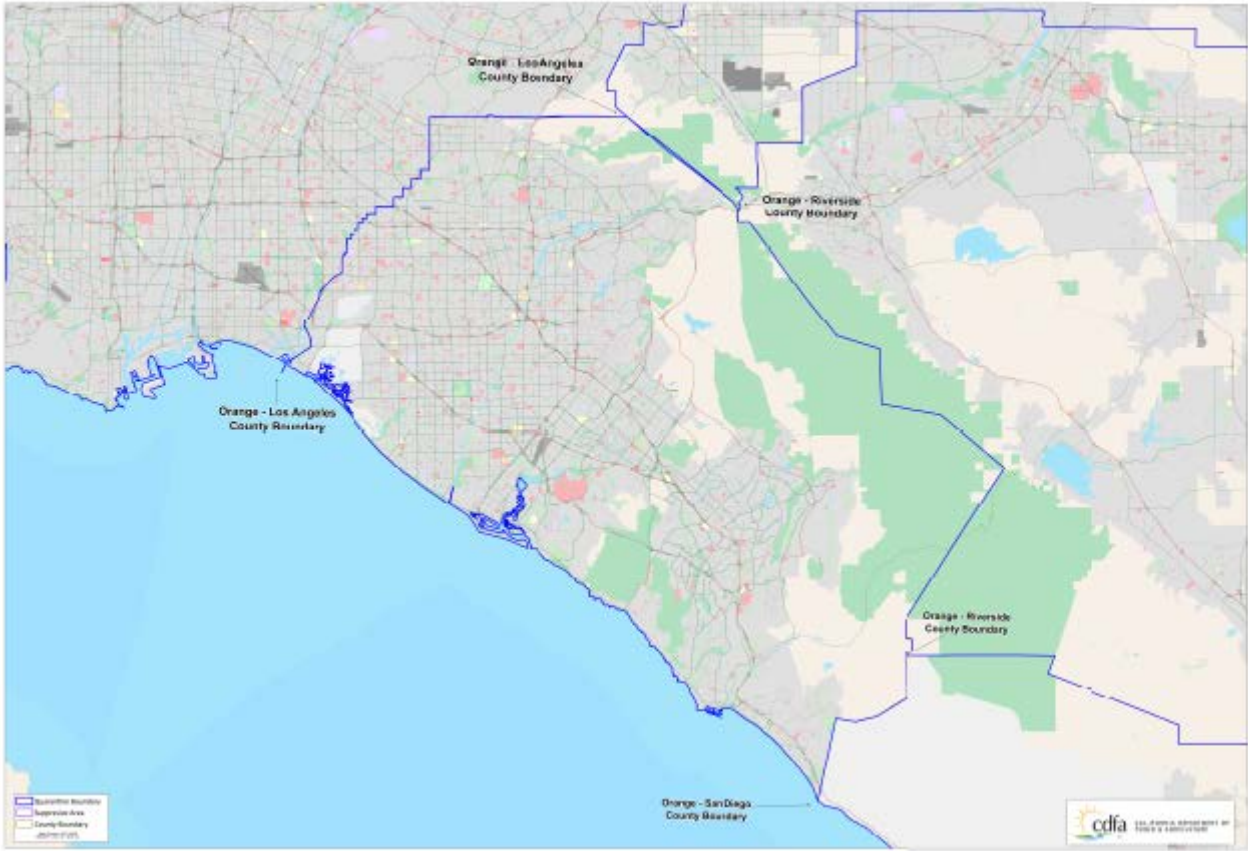




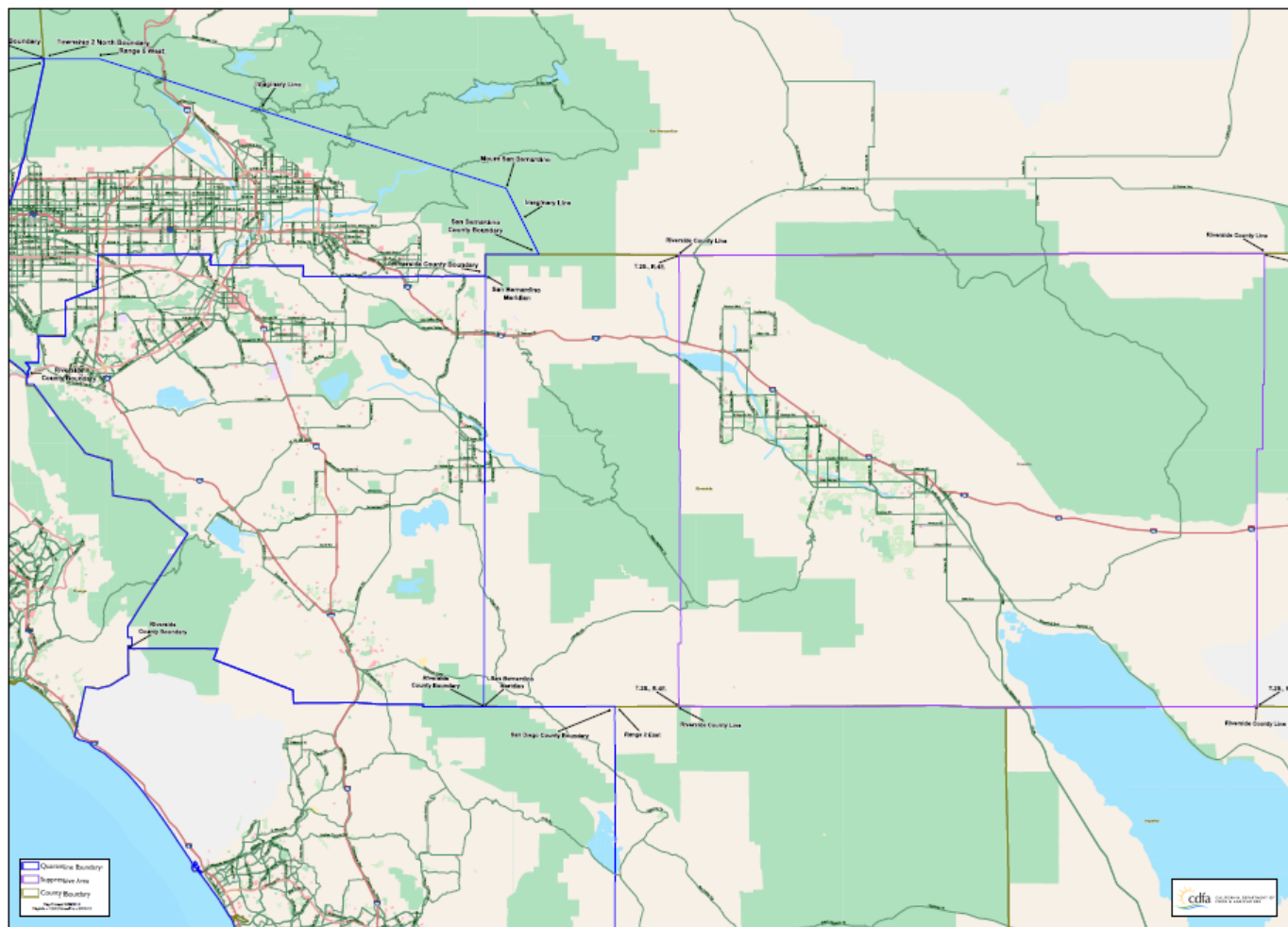
**Citrus Tristeza Virus (CTV)  
Los Angeles County**



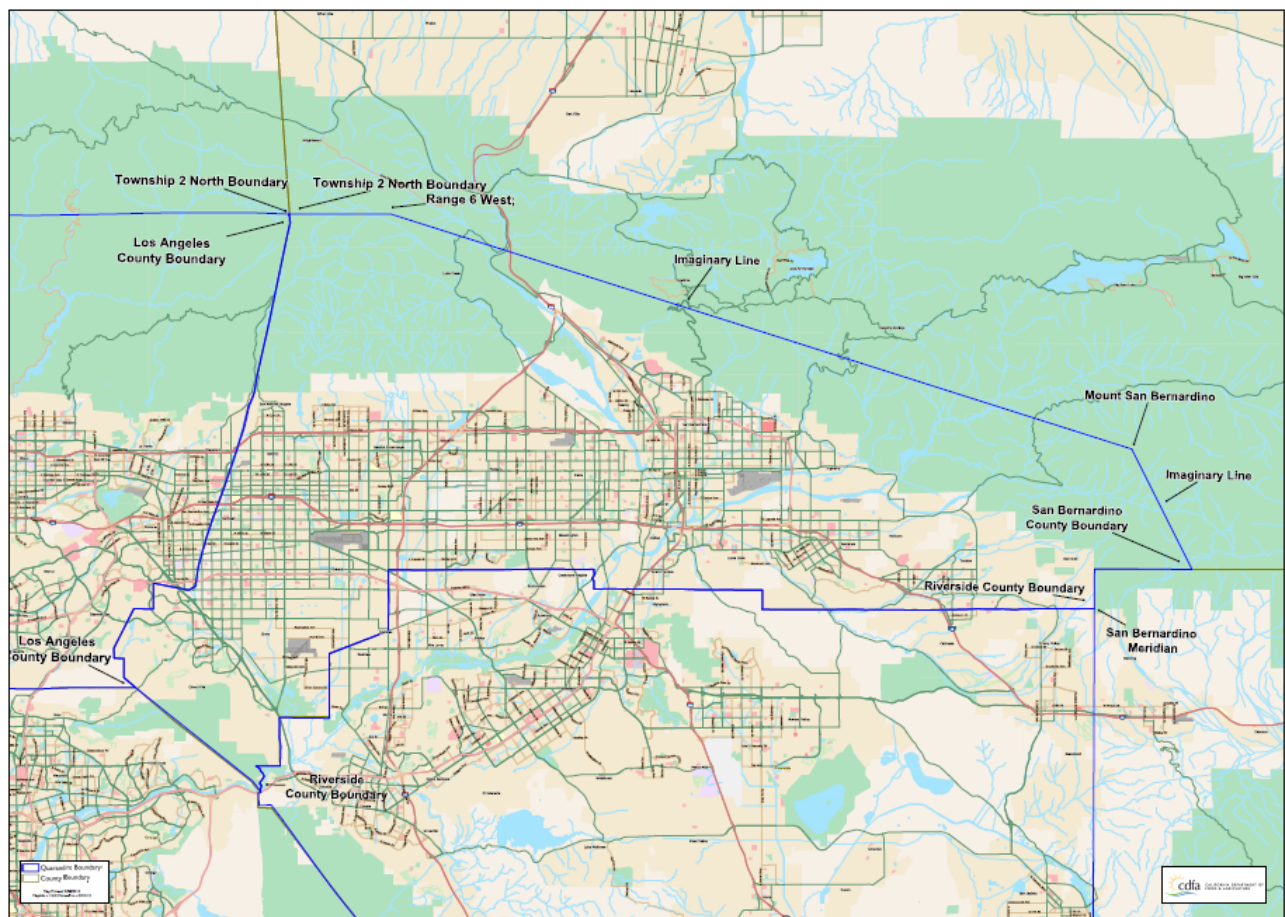
Citrus Tristeza Virus (CTV)  
Orange County



**Citrus Tristeza Virus (CTV)  
Riverside County**



**Citrus Tristeza Virus (CTV)  
San Bernardino County**



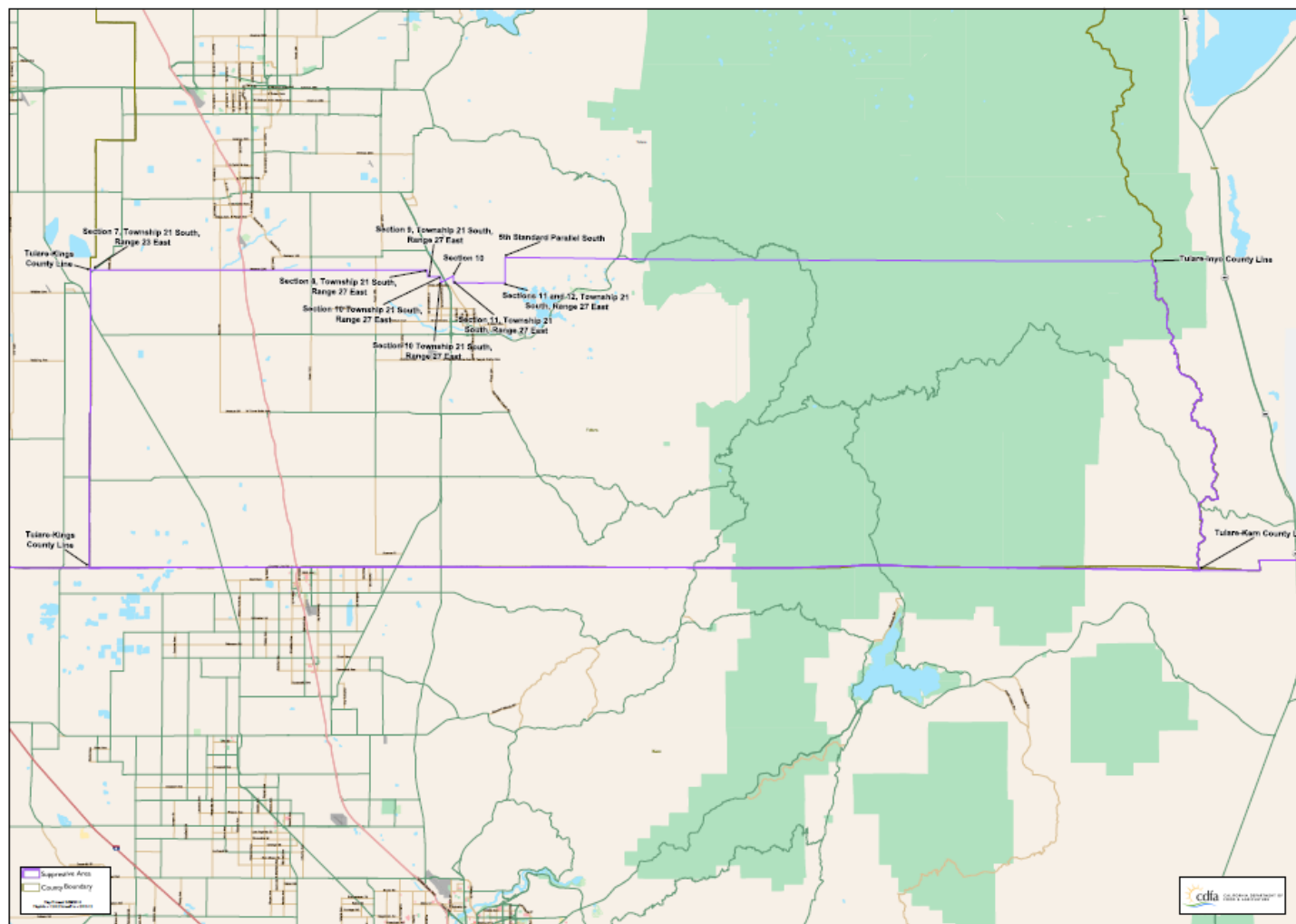


The map displays the proposed Supervisor's Area for Range 2 East in San Diego County. The area is outlined in blue. The map includes the coastline, major roads, and various geographical features. A legend in the bottom left corner identifies the boundaries: Supervisor's Area (blue outline), County Boundary (yellow outline), and County Boundary (black outline). The map also shows the San Diego County Boundary and the Range 2 East area.

Citrus Tristeza Virus (CTV)  
Santa Barbara County



**Citrus Tristeza Virus (CTV)  
Tulare County**



**Citrus Tristeza Virus (CTV)**  
**Ventura County**

