



Texas Citrus Tree Crop Insurance Program

Training Module

2020 Crop Year



Objectives

- Review the Texas Citrus Tree (TCT) Crop Provisions, including the
 - Occurrence Loss Option (OLO)
- Review the Comprehensive Tree Value Endorsement (CTVE)
- Provide examples of
 - Determining the Amount of Protection and premium
 - Claim settlement for the TCT (base) policy, base policy with the OLO, CTVE, and CTVE with the OLO



TCT Crop Provisions

Section 1. Definitions

Definitions:

- Amount of Protection (unit): The dollar amount for the unit calculated by multiplying the number of insurable trees reported by you in each stage-block times the **your** tree reference price for **each** stage-**block**, totaling these values, and then multiplying this result times the coverage level selected by you.
- Buckhorn: To prune any limb at a diameter of at least three inches for citrus trees.



Section 1. Definitions

Definitions, *continued*:

- Insured Crop: Each of the following types
 - Commodities
 - Types
 - Oranges Trees
 - Oranges Trees
 - Grapefruit Trees
 - Grapefruit Trees
 - Grapefruit Trees
 - Tangerine Trees
 - **Lemon Trees**
 - **Lemon Trees**
 - Lime Trees
 - Lime Trees
 - Any other citrus tree type as specified in the Special Provisions
 - Early and Mid-Season Oranges
 - Late Oranges
 - All Other Grapefruit
 - Rio Red and Star Ruby
 - Ruby Red
 - (multiple types – see the Special Provisions)
 - Meyer**
 - All Other Lemons**
 - Persian (Tahiti)
 - All Other Limes and



Section 1. Definitions

Definitions, *continued*:

- Crop year: The period beginning December 1 and extending through November 30 of the following year, and is designated by the calendar year in which the period ends.
- Excess moisture: Direct or proximate rainfall in quantities sufficient to destroy the tree.



Section 1. Definitions

Definitions, *continued*:

- Stage: A tree-classification system used by us. At the time insurance attaches, the stage of each insurable tree in the unit, unless otherwise specified on the Special Provisions, is:
 - Stage I, if the tree is set out less than three crop years, buckhorned or topworked less than two crop years, or was rehabilitated or reset after having been toppled less than one crop year prior to the beginning of the current crop year.
 - Stage II, if the tree is set out three or more crop years, buckhorned or topworked two or more crop years, or rehabilitated or reset after having been toppled less than two crop years prior to the beginning of the current crop year, but do not yet qualify as stage III.



Section 1. Definitions

Definitions, *continued*:

- Stage, *continued*:

- Stage III, if the tree is able to produce a yield typical of a healthy tree of the current tree age and has reached the:
 - Seventh crop year after set out;
 - Fifth crop year after buckhorning or topworking;
or
 - Third crop year after being rehabilitated or reset.



Section 1. Definitions

Definitions, *continued*:

- Stage: High Density Limes – In accordance with definition of stage in Section 1 of the Texas Citrus Tree Crop Provisions, the stage of each insurable high density lime tree in the unit is:
 - Stage I, if the tree is set out less than two crop years, buckhorned or topworked less than two crop years, or was rehabilitated or reset after having been toppled less than one crop year prior to the beginning of the current crop year.
 - Stage II, if the tree is set out two to four crop years, buckhorned or topworked two or more crop years, or rehabilitated or reset after having been toppled less than two crop years prior to the beginning of the current crop year, but do not yet qualify as stage III.



Section 1. Definitions

Definitions, *continued*:

- Stage, *continued*:
 - Stage III, if the tree is able to produce a yield typical of a healthy tree of the current tree age and has reached the:
 - Fifth crop year after set out;
 - Third crop year after buckhorning or topworking; or
 - Second crop year after being rehabilitated or reset.



Section 1. Definitions

Definitions, *continued*:

- Share: In addition to the definition in section 1 of the Basic Provisions, an insured tenant or operator must have a lease with the owner of the citrus grove that requires him or her to maintain the citrus grove using accepted grove management practices. The lease agreement must clearly state the tenant is entitled to his or her insured share of any indemnities under the Texas Citrus Tree Crop Provisions. A copy of the lease must be on file with the insuring company at the time insurance attaches. However, only for the purpose of determining the amount of indemnity, the insured's share will not exceed the insured's share at the time of loss.
- Toppled: A tree that is no longer upright and has an exposed root system.



Section 1. Definitions

Definitions, *continued*:

- Unit Value: Unless otherwise specified on the actuarial documents, the amount determined by multiplying the actual number of insurable trees in each stage-block in the unit, as determined by us, on the day before the loss (but not reduced for any insured damage that occurred during the crop year) times **your** tree reference price for **each stage-block**, totaling these values, and then multiplying this result times the coverage level selected by you.



Section 1. Definitions

Additional Definitions, *continued*:

- Block: A stand of trees of the same type on acreage sharing a common boundary with no discernable change in the planting pattern.
- Citrus trees: Citrus trees including Rio Red, Star Ruby Red, Ruby Red, and all other grapefruit; early, mid-season, late oranges; Dancy, Fairchild, Fallglow, Robinson, Sunburst, and all other tangerines; Persian and all other limes, **lemons and all other lemons**, and any other tree types or groups of tree types specified in the Special Provisions.
- Damage value: The dollar amount determined by multiplying the actual number of insurable trees in each stage-block damaged by the most recent cause of loss times **your** tree reference price for **each stage-block**, multiplying this result for each stage-block times the percent of damage applicable to each stage-block, and totaling these values.



Section 1. Definitions

Additional Definitions:

- Amount of Insured Damage: The dollar amount determined by multiplying the damage value by the coverage level.
- Partially damaged tree: A tree that requires rehabilitation but for which the extent of damage is less than 100 percent. The percent of damage is determined in accordance with section 13(b).
- Fully damaged tree: A tree that is 100-percent damaged and requires rehabilitation or reset, but is not destroyed. The percent of damage is determined in accordance with section 13(b).



Section 1. Definitions

Additional Definitions, *continued*:

- Destroyed tree (100% damaged): A tree damaged to the extent that:
 - The tree is dead;
 - If there exists damage within one foot of the trunk for stage II and stage III trees;
 - The tree is toppled, and reset is not possible, or the tree is missing; or
 - There is no live wood above the bud union (DYSO and FYSO).



Section 1. Definitions

Additional Definitions, *continued*:

- Partial Damage Factor: A factor contained in the Special Provisions for each stage and used to determine the percent of damage for the applicable stage of partially damaged trees.
- Occurrence Loss Option: An option that may be elected by you that eliminates the unit deductible in accordance with section 15.
- Rehabilitation: The pruning of limbs at a diameter of at least one inch for citrus trees in an attempt to remove the damaged areas and allow the tree to recover.



Section 1. Definitions

Additional Definitions, *continued*:

- Stage-block: A block in which at least 75 percent of the trees are the same stage.
- Stand of damaged trees: The area or areas within a unit where damage due to the same insurable cause of loss occurs, as established by us for the crop year, and used to determine the damage value for the unit. If distinct areas of damaged trees within the unit cannot be established, the stand of damaged trees will be the entire unit.
- Tree reference price: The price per tree, by stage, type, and **practice**, listed on the actuarial documents for tree replacement, rehabilitation, or reset that is used in calculating the unit value, the amount of protection, and the damage value.



Section 1. Definitions

Additional Definitions, *continued*:

- Undamaged tree: A tree with live wood above the bud union that does not require rehabilitation, reset, or removal.
- Underreport Factor (unit): A factor determined by us and used to adjust your indemnity in section 13(a) when you have underreported the number of insurable trees. The factor is the result of dividing the amount of protection by the unit value, rounded to three decimal places, not to exceed 1.000.
- Unit Deductible: The dollar amount determined by multiplying the actual number of insurable trees in each stage-block in the unit on the day before the loss (but not reduced for any insured damage that occurred during the crop year) times **your** tree reference price for **each** stage-block, totaling these values, and multiplying this result times the deductible (1.0 minus the coverage level).



Section 2. Unit Division

- A basic unit, as established in section 1 of the BP, will be divided into additional basic units by each type contained in the SP.
- Optional units by non-contiguous land, **separate groves on contiguous acreage (based on minimum distance and size (see SP), and per section 34(c)(3) of BP (organic practice).**
- **Enterprise units per section 2(c) of the CP.**
- **No other unit division or whole farm units allowed.**



Section 3. Insurance Guarantees, Coverage Levels,...

- (a) You may select only one coverage level for each crop (**type**) that you elect to insure.
- (b) If the actuarial documents designate separate prices by type, you may select one price election for each type so designated in the SP, even if the prices for each type are the same. The prices you choose for each type are not required to have the same percentage relationship to the maximum price offered by us for each type. **For example, if you choose 100 percent of the maximum price for one type, you may choose 75 percent of the maximum price for another or type.**



Section 3. Insurance Guarantees, Coverage Levels,... *(Continued)*

- (c) After the initial crop year of insurance, the coverage level election, **price percentage**, optional coverage, or amount of protection may only be changed on or before **November 1** sales closing date prior to the beginning of the crop year for which the change is to be effective, except if a cause of loss that could or would cause damage to the insured crop is evident at the time of your request for change.



Section 3. Insurance Gurantees, Coverage Levels,... *(Continued)*

- (e) Coverage for the higher coverage level or **price percentage**, increased share, additional protection (increase tree acreage) or optional coverage begins **December 1** except if:

Insured damage occurs between the sales closing date and the date insurance attaches,

No increased level, **price percentage**, share, or protection; or optional coverage will apply for the crop year.



Sections 4 and 5.

- Contract Change Date
 - The contract change date is **June 30** preceding the cancellation date.
- Cancellation and Termination Dates
 - The cancellation and termination dates are **November 30** before the beginning of the crop year.



Section 6. Report of Acreage

- Annual acreage report is due December 15 of the calendar year that insurance attaches.
- Must report by stage-block for each type unit:
 - The stage of the trees
 - The number of trees (insurable and non-insurable)
- Must submit a pre-acceptance worksheet and grove identification map, which indicates the location of each stage-block of trees by section (or applicable legal description) and includes any trees not insurable for each unit with your application. A revised worksheet and map must be submitted by the acreage reporting date if any trees are added in a succeeding crop year.
- Revisions of the acreage report after the acreage reporting date are permitted only as provided in section 6(c) of the CP.



Stage-block Determination, Example

- For blocks in which **less than 75%** of the trees are the same stage, the producer **must** separate the blocks into stage-blocks and report the number of trees in each stage-block.
- Example: A producer has one unit of **Ruby Red** grapefruit with 1,400 stage III trees, 800 stage II trees, and 800 stage I trees.
- The block must be reported as follows:

Block Number	Stage-Block	Stage	Number of Trees
1	1-I	I	800
1	1-II	II	800
1	1-III	III	1,400



Stage-block Determination, Example

- For blocks in which **at least 75%** of the trees are the same stage, the producer **may** report the blocks as one stage-block.
- Example: A producer has one unit of **Ruby Red** grapefruit with 1,500 stage III trees, 250 stage II trees, and 250 stage I trees.
- The block may be reported as one stage-III block of 2,000 trees, or as follows:

Block Number	Stage-Block	Stage	Number of Trees
1	1-III	III	2,000



Stage-block Determination, Underwriting Guide

- Applicants for insurance certify the numbers and ages of trees to be insured by completing a Texas Fruit Tree Grove Producer Pre-Acceptance Worksheet (shown in Exhibit 3 with instructions for completion.)
- The applicant identifies the blocks of trees in each unit and provides information about the numbers of trees and planting dates used to designate the stage-blocks that comprise each unit.
- The applicant also provides a Grove Identification Map (shown in Exhibit 3 with instructions for completion) that shows locations of the stage-blocks identified in the worksheet.
- Policyholders are not required to submit worksheets or maps in subsequent years unless changes occur which alter the numbers of trees and/or stage-block designations.



Stage-block Determination, Underwriting Guide

- Producers are not required to submit copies of their records to the insurance provider unless required by the loss adjuster at the time of claim settlement due to discovery of a discrepancy between the stage blocks that were established for the unit and the actual numbers and stages of trees in the unit.
- The following types of records are acceptable:
 - Planting records (grove management records); and
 - Insurance provider recorded evidence, i.e., any documentation of tree ages (other staging information – year of dehorning, topping, rehabilitation, resetting) used to establish insurance coverage for the trees produced by the trees.



Section 7. Annual Premium

- Annual premium is determined by multiplying the amount of protection for the unit times the share, times the applicable premium rate, and times any applicable premium adjustment percentages shown in the actuarial documents.
- A separate administrative fee must be paid for each insured crop (type).



Section 8. Insured Crop

Insured trees will be those of each insurable type contained in the Special Provisions:

- (1) Listed on your application for the insured county;
- (2) Adapted to the production area;
- (3) In which you have a share;
- (4) That are irrigated;
- (5) That will produce a yield typical for the tree (exception: stage I and II buckhorned or topworked trees); and
- (6) Intended to produce a commodity sold for human consumption (fruit or juice).



Section 8. Insured Crop contd.

In addition to the exclusions listed in section 8 of the Basic Provisions, we do not insure any trees that:

- (1) Have been grafted with a 12-month period before the date insurance attaches unless the result of topworking;
- (2) Are non-grafted seedlings (grown from seed);
- (3) Are unsound, diseased, or unhealthy;
- (4) Are toppled (If a tree is toppled and reset, the tree is restaged – see stage definitions);
- (5) Were damaged before the beginning of the insurance period (If trees suffered damage the previous crop year, then insurance will not attach until the previous year's damage is determined, you submit a revised acreage report, and the trees are accepted by us); or
- (6) Are inspected by us and considered unacceptable.



Section 10. Insurance Period

- (a)(1) For new insureds, coverage begins **December 1** after the sales closing date unless we notify you that all or part of the trees are not insurable .
- (a)(2) For carryover insureds, coverage begins on **December 1**.



Section 10. Insurance Period

The calendar date for the end of the insurance is

November 30 of the crop year.



Section 11. Causes of Loss

- (1) Freeze;
- (2) Wind;
- (3) Excess Moisture;
- (4) Hail;
- (5) Fire (if weeds and brush are controlled and prunings are removed) ;
- (6) Specified diseases, insects, and parasites if allowed by the Special Provisions (*none allowed*); and
- (7) Failure of the irrigation water supply due to an insured cause or drought.



Section 12. Duties in the Event of Damage or Loss

- If you intend to claim an indemnity, you must not prune, buckhorn, topwork, or remove any damaged trees until we have inspected the unit. Such inspections will occur within 10 days of the notice of loss, unless we advise you that additional time is needed.
- Submit claim with 60 days of the end of the insurance period unless damage cannot be determined until after the end of the insurance period, the claim must be submitted not later than **12 months** after the end of the insurance period.



13. Settlement of Claim

Step 1: Calculate the Unit Value and Underreport Factor

Step 2. Calculate the Unit Deductible

Step 3. Calculate the Damage Value (for all losses since the beginning of the crop year including the current loss)

Step 4. Subtract the Unit Deductible from the Damage Value

Step 5. Multiply the difference (the result of 4) times the Underreport Factor and Share

Step 6. Subtract any previous indemnities for the current crop year to determine the indemnity due for the most recent cause of loss



Section 13. Settlement of Claim

- (b) Percent of damage for each stage-block in the stand of damaged trees is determined as follows:
 - (1) For damage occurring during the year of set out:
 - (i) Any tree with no live wood above the bud union will be considered destroyed (100 percent damaged); and
 - (ii) Any tree with live wood above the bud union will be considered undamaged.
 - (2) For damage occurring in any year following the year of set out, or for buckhorned or topworked trees, damage occurring either during the year the trees are topworked or buckhorned or any year thereafter:



Section 13. Settlement of Claim

(b)(2) *Percent of damage, continued*

Trees are considered **DESTROYED (100 percent damaged)** if:

- Dead
- No live wood above the bud union
- Toppled and reset is not possible or the tree is missing
- Damage within one foot of trunk for Stage II or III citrus trees



Section 13. Settlement of Claim

From (b) (2) Percent of damage, continued

- Trees are considered **FULLY (100 percent) DAMAGED** if:
 - Buckhorned trees with no live wood above new growth points
 - Topworked trees with no live wood above graft unions
 - Toppled and reset is possible
 - Trees for which the diameter of at least one damaged limb is **at least three inches** at the point of damage



Section 13. Settlement of Claim

From (b) (2) Percent of damage, continued

- Trees are considered **PARTIALLY DAMAGED** (less than 100 percent damage) if:
 - the diameter of at least one damaged limb is **at least one inch but less than three inches** at the point of damage
 - The percent of damage is determined for each stage by dividing the number of partially damaged trees by the number of trees in the stage block for the stand of damaged trees and multiplying the result by the applicable stage partial damage factor contained in the Special Provisions



Percent Damage Determination (from the LASH)

- Four damage categories:
 - Undamaged (0%)
 - Partially Damaged (39%–75%, see Table B in LASH)
 - Fully Damaged (100%)
 - Destroyed (100%)
- Percent damage is determined based on representative samples from each stage-block that is within the stand of damaged trees (SDT)
- For each sample tree, appraise the two largest limbs on opposing sides of the tree. For example, the north/south limbs on the first sample tree, the east/west limbs on the second sample tree, and so forth



Percent Damage Determination (from the LASH)

- The limb with the greater amount of damage determines the damage category for the entire tree as follows:
 - Tree 1:
 - Limb 1 damage = 1" limb diameter
 - Limb 2 damage = 3" limb diameter
 - Tree Damage = 3" limb diameter = **Fully Damaged**
 - Tree 2:
 - Limb 1 damage = No damage
 - Limb 2 damage = 1" limb diameter
 - Tree Damage = 1" limb diameter = **Partially Damaged**



Section 13. Settlement of Claim

- (c) The applicable percent damage for the crop year will not exceed 100% for any stage-block or portion of a stage-block within a stand of damaged trees
- (d) Percent of damage will be determined the earlier of:
 - (1) Our determination of the total destruction of insured trees on the unit; or
 - (2) November 30 of the crop year unless the percent of damage cannot be determined and in such cases it will be determined not later than twelve months after November 30 of the crop year in which the damage occurred.



Section 15. Occurrence Loss Option (OLO)

- Available with buy-up coverage for additional premium
- Eliminates Unit Deductible from indemnity calculation if a minimum damage threshold is met
- The OLO may not be elected with CAT or the CEO (Coverage Enhancement Option)
- The OLO may be elected with the CTVE but not for the CTVE with CEO



Section 14. OLO

- OLO Indemnity Calculation
 - Step 1: Calculate Unit Value and Underreport Factor
 - Step 2: Multiply the Unit Value by 5%
 - Step 3: Calculate the Damage Value
 - Step 4: Calculate the Amount of Insured Damage
 - If Amount of Insured Damage \geq 5% of Unit Value,
Indemnity = Amount of Insured Damage x
Underreport Factor x Share
 - If Amount of Insured Damage $<$ 5% of Unit Value, no
indemnity is due



Examples, Assumptions

- Producer insures two crop **types** (two units)

600 early orange trees	3,000 Ruby Red grapefruit trees
200 Stage I	800 Stage I
200 Stage II	800 Stage II
200 Stage III	1,400 Stage III
- Elects 75% coverage level
- **Elects 100% price percentage**
- Has 100% share in crops
- Actuarial documents provide:
 - 5% base premium rate on both crop **types**
 - Tree Reference Prices for both crop **types** are:
 - **\$32** (Stage I)
 - **\$57** (Stage II)
 - **\$74** (Stage III)



Example – Base Policy

Amount of Protection and Premium

- Amount of Protection

Early Oranges = **\$24,450**

$$= [(200 \times (\$32 \times 100\%))] + [(200 \times (\$57 \times 100\%))] + [(200 \times (\$74 \times 100\%))] \times 75\%$$

Ruby Red Grapefruit = **\$131,100**

$$= [(800 \text{ trees} \times (\$32 \times 100\%))] + [(800 \text{ trees} \times (\$57 \times 100\%))] + [(1,400 \text{ trees} \times (\$74 \times 100\%))] \times 75\%$$

- Premium Calculation

Early Oranges = **\$1,223**

$$= \$24,450 \times 100\% \text{ share} \times 5\% \text{ premium rate}$$

Ruby Red Grapefruit = **\$6,555**

$$= \$131,100 \times 100\% \text{ share} \times 5\% \text{ premium rate}$$



Example

Calculation of OLO Premium

- Amount of Protection (same as base policy)

Oranges = **\$24,450**

Ruby Red Grapefruit = **\$131,100**

7% premium rate for base policy with OLO

- Premium for Base Policy with OLO

- Oranges = **\$1,712**

= \$17,250 x 100% share x 7% premium rate

- Ruby Red Grapefruit = **\$9,177**

= \$91,500 x 100% share x 7% premium rate



Claim Example – Base Policy

- Wind damage to Ruby Red grapefruit
 - 100% damage to a block of 700 stage III trees
 - No previous losses during crop year

- Calculation

Unit Value = **\$131,100** = Amount of Protection

Underreport Factor = 1.000

Unit Deductible = **\$43,700**

= [(800 trees x (**\$32 x 100%**))] + [(800 trees x (**\$54 x 100%**))] + [(1,400 trees x (**\$74 x 100%**))] x 25%

Damage Value = **\$51,800**

= (700 trees x (**\$74 x 100%**)) x 100% damage

Damage Value – Unit Deductible = **\$8,100**

= **\$51,800** - **\$43,700**

Indemnity = **\$8,100** = **\$8,100** x 1.000 URF x 100% share



Claim Example – Prior loss

- Freeze damage to Ruby Red grapefruit
 - 35% damage to a block of 800 stage III trees
 - 60% damage to a block of 400 stage I trees
 - With prior loss during crop year

- Calculation

Unit Value = **\$131,100** = Amount of Protection

Underreport Factor = 1.000

Unit Deductible = **\$43,700**

= [(800 trees x (**\$32 x 100%**))] + [(800 trees x (**\$54 x 100%**))] + [(1,400 trees x (**\$74 x 100%**))] x 25%

Damage Value = **\$25,810** = [(700 trees x (**\$74 x 100%**) x 0.35)] + [(400 trees x (**\$32 x 100%**) x 0.60)]

Total Damage Value for the crop year – Unit Deductible = **\$33,910** [(**\$51,800 + \$25,810**) – **\$43,700**]

Indemnity for most recent cause of loss = **\$25,810**

= (**\$33,910** x 1.000 x 100% share) - **\$8,100** prior



Example of Claim with OLO

- Freeze damage to Ruby Red grapefruit
 - 35% damage to a block of 800 stage III trees
 - 60% damage to a block of 400 stage I trees

- Calculation

Unit Value = **\$131,100** = Amount of Protection

Underreport Factor = 1.000

5% of Unit Value = **\$6,555** = **\$131,100** x 0.05

Damage Value = **\$25,810** = [(700 trees x (**\$74 x 100%**) x 0.35)] + [(400 trees x (**\$32 x 100%**) x 0.60)]

Amount of Insured Damage = **\$19,358** = **\$25,810** x 75%

Amount of Insured Damage > 5% of Unit Value

(\$19,358 > \$6,555)

Indemnity = **\$19,358** = **\$19,358** x 1.000 URF x 100% share



Comprehensive Tree Value Endorsement (CTVE)

- Section 1. In return for payment of additional premium, this endorsement is attached to and made part of the TCT Crop Provisions
- Section 2. Must be elected on or before November 1 continues in effect until cancelled by the policyholder or insurance provider by giving written notice to the other party on or before November 30
- Section 3. To be eligible for the CTVE, must have TCT policy in force and not have elected coverage under the CAT endorsement
- Section 4. All eligible insurable trees within the county of each type the policyholder elected to cover under this endorsement will be insured



CTVE Definitions, Section 5

- **Block** – Not defined - Same as the Crop Provisions.
- **Citrus tree type** – Not defined – Same as Crop Provisions.
- **CTV amount of insured damage** – The dollar amount determined by multiplying the CTV damage value by the coverage level.



CTVE Definitions, Section 5

- **CTV amount of protection** – The dollar amount (by unit) calculated by multiplying the number of insurable trees reported by you in each stage II- and stage III-block (excluding standard density limes) times **your** maximum CTV reference price for **each** stage-**block**, adding these values, and then multiplying the result by the coverage level selected by you.



CTVE Definitions, Section 5

- **CTV damage value** – The dollar amount determined by multiplying the actual number of destroyed trees and the actual number of fully damaged trees in each stage II- and stage III-block (excluding standard density limes) in all the stands of damaged trees (SDT) identified as a result of the most recent cause of loss times **your** CTV reference price for each stage-**block**, and then adding these values. The CTV reference price will be the maximum CTV reference price for trees destroyed and the minimum CTV reference price for trees fully (100-percent) damaged.
- **CTV underreport factor (unit)** – A factor determined by us and used to adjust your CTV indemnity in section 10(b)(2) when you have underreported the number of insurable trees. The factor is the result of dividing the CTV amount of protection by the CTV unit value, rounded to three decimal places, not to exceed 1.000.



CTVE Definitions, Section 5

- **CTV unit deductible** – The dollar amount determined by multiplying the actual number of insurable trees in each stage II- and stage III-block (excluding standard density limes) in the unit on the day before the loss (but not reduced for any insured damage that occurred during the crop year) times **your** maximum CTV reference price for **each stage-block**, adding these values, and then multiplying the result by the deductible (**1.0 minus the coverage level**).
- **CTV unit value** – The amount determined by multiplying the number of actual insurable trees in each stage II- and stage III-block (excluding standard density limes) in the unit, as determined by us, on the day before the loss (but not reduced for any insured damage that occurred during the crop year) times **your** maximum CTV reference price for **each stage-block**, adding these values, and then multiplying the result by the coverage level selected by you.



CTVE Definitions, Section 5

- **Maximum CTV reference price** – The price per tree by stage, type, **and practice** listed on the **actuarial documents** for CTV that is used in calculating the CTV unit value, the CTV amount of protection, and the portion of the CTV damage value for destroyed trees for this endorsement.
- **Minimum CTV reference price** – The price per tree by stage, type, **and practice** listed on the **actuarial documents** for CTV that is used in calculating the portion of the CTV damage value for fully (100-percent) damaged trees for this endorsement.



Comprehensive Tree Value Endorsement (CTVE)

- Section 6. Coverage level and **price percentage** elected under section 3 of the TCT Crop Provisions applies to the CTVE.
- Section 7. Trees in Stage I blocks and standard density limes (all stage blocks) are not insurable.
- Section 8. Only citrus trees in stage II and III blocks (excluding standard density limes) considered fully (100 percent) damaged or destroyed are eligible for an indemnity.



CTVE, Summary of Insurable Types (Crops)

Commodities	Types
■ Orange Trees	Early and Mid-Season
■ Orange Trees	Late Oranges
■ Grapefruit Trees	All Other Grapefruit
■ Grapefruit Trees	Rio Red and Star Ruby
■ Grapefruit Trees	Ruby Red
■ Tangerine Trees	(multiple types – see the Special Provisions)
■ Lemon Trees	Meyer
■ Lemon Trees	All Other Lemons
■ Lime Trees	Persian (Tahiti)
■ Lime Trees	All Other Limes



CTVE, Section 9

- For all trees considered **destroyed**, to receive the full indemnity under this endorsement:
 - An equivalent number of trees must be planted within four calendar years of the date of the removal or destruction
 - The trees planted do not have to be the same crop as the destroyed trees but must be grown to produce fruit intended to be sold for human consumption
 - The trees must be planted in accordance with good farming practices and in an area within the state of Texas considered to be suitable for the production of the specific fruit crop
 - Policyholder will receive 50% of the indemnity within 30 days after claim approval and the remaining 50% upon verification by insurance provider that the requirements of this section have been met.



CTVE, Section 10

- CTVE claim will only be payable if an indemnity is paid on the same unit under the TCT policy.
- If no indemnity is due under the TCT policy, then no indemnity will be due under this endorsement.



CTVE Example

- Producer insures two crop **types** (two units)
 - 400 eligible Early Orange trees:
 - 200 Stage II
 - 200 Stage III
 - 2,200 eligible Ruby Red Grapefruit trees:
 - 800 Stage II
 - 1400 Stage III
- Assume
 - 75% coverage level (25% deductible)
 - **100% price percentage**
 - 100% share
 - 3% CTVE premium rate on both crop **types**



CTVE Example

- CTV Reference Prices

CTV Maximum Reference Prices (Early Orange)

\$60 (Stage II)

\$116 (Stage III)

CTV Maximum Reference Prices (Ruby Red Grapefruit)

\$59 (Stage II)

\$110 (Stage III)

CTV Minimum Reference Prices (Early Orange)

\$38 (Stage II)

\$64 (Stage III)

CTV Minimum Reference Prices (Ruby Red Grapefruit)

\$39 (Stage II)

\$63 (Stage III)



Example CTVE Amount of Protection and Premium

■ CTV Amount of Protection

Early Orange = **\$15,300**

$$= [(200 \text{ trees} \times (\$38 \times 100\%))] + [(200 \text{ trees} \times (\$64 \times 100\%))] \times 75\%$$

Ruby Red Grapefruit = **\$150,900**

$$= [(800 \text{ trees} \times (\$59 \times 100\%))] + [(1,400 \text{ trees} \times (\$110 \times 100\%))] \times 75\%$$

■ Premium Calculation

Early Orange = **\$459**

$$= \$15,300 \times 100\% \text{ share} \times 3\% \text{ premium rate}$$

Ruby Red Grapefruit = **\$4,527**

$$= \$150,900 \times 100\% \text{ share} \times 3\% \text{ premium rate}$$



Example, CTVE Indemnity Calculation

- Freeze damage to Ruby Red Grapefruit trees
 - 200 stage II and 200 stage III were destroyed
 - 200 stage II and 200 stage III were fully damaged
 - Use **Maximum** CTV Reference Price to calculate CTV Damage Value for **destroyed** trees; replant required
 - Use **Minimum** CTV Reference Price to calculate CTV Damage Value for **fully damaged trees**; replant not required



Example, CTVE Indemnity Calculation

- Calculations

CTV Underreport Factor = 1.000

CTV Unit Deductible = \$50,300

= [(1,400 trees x (\$110 x 100%))] + [(800 trees x (\$59 x 100%))] x 25% deductible

CTV Damage Value for destroyed trees = \$33,800

= [(200 trees x (\$110 x 100%))] + [(200 trees x (\$59 x 100%))]

CTV Damage Value for fully damaged trees = \$20,400 =

[(200 trees x (\$63 x 100%))] + [(200 trees x (\$39 x 100%))]



Example, CTVE Indemnity Calculation

Continued

CTV Damage Value for destroyed trees = **\$33,800**
= [(200 trees x (**\$110 x 100%**))] + [(200 trees x (**\$59 x 100%**))]

CTV Damage Value for fully damaged trees = **\$20,400**
= [(200 trees x (**\$63 x 100%**))] + [(200 trees x (**\$39 x 100%**))]

Total CTV Damage Value = **\$54,200** = **\$33,800** + **\$20,400**

CTV Damage Value - CTV Unit Deductible = **\$3,900**
= **\$54,200** - **\$50,300**

Total Indemnity = \$3,900 = **\$3,900** x 1.000 x 100%



Example, CTVE Indemnity Calculation

- *Continued*

Percent of Damage Value due to destroyed trees
= 62% = $33,800 \div \$54,200$

Percent of Damage Value due to fully damaged trees
= 38% = $\$20,400 \div \$54,200$

Indemnity due at time of claim = 100% indemnity for fully damaged trees + 50% indemnity for destroyed trees = **\$2,684** = $(\$3,900 \times 38\%) + (\$3,900 \times 62\% \times 50\%)$

Indemnity due upon verification of replant = **\$1,216** = $\$3,900 \times 62\% \times 50\%$



Example, Indemnity Calculation CTVE with OLO

- Freeze Damage to Ruby Red Grapefruit
 - 200 Stage II and 200 Stage III were destroyed
 - 200 Stage II and 200 Stage III were fully damaged

- Calculations

Underreport Factor = 1.000

CTV Damage Value for destroyed trees = **\$33,800**

$$= [(200 \text{ trees} \times (\$110 \times 100\%))] + [(200 \text{ trees} \times (\$59 \times 100\%)]$$

CTV Amount of Insured Damage destroyed trees

$$= \mathbf{\$25,350} = \mathbf{\$33,800} \times 75\% \text{ coverage level}$$

Indemnity for destroyed trees = \$25,350

$$= \mathbf{\$25,350} \times 1.000 \times 100\% \text{ share}$$



Example, Indemnity Calculation CTVE with OLO

- *Continued*

CTV Damage Value for fully damaged trees = **\$20,400**
= [(200 trees x (**\$63 x 100%**))] + [(200 trees x (**\$39 x 100%**))]

CTV Amount of Insured Damage for fully damaged trees
= **\$15,300** = **\$20,400** x 75%

Indemnity for fully damaged trees = \$15,300
= **\$15,300** x 1.000 x 100% share

Total indemnity = \$40,650 = **\$25,350** + **\$15,300**

Indemnity due at time of claim = \$27,975
= (**\$25,350** x 50%) + **\$15,300**

Indemnity due after replant = \$12,675
= (**\$23,350** x 50%)