



**APPLE TREE
CROP INSURANCE
TRAINING MODULE**

**2021 CROP YEAR
2/25/2020**

Program Summary

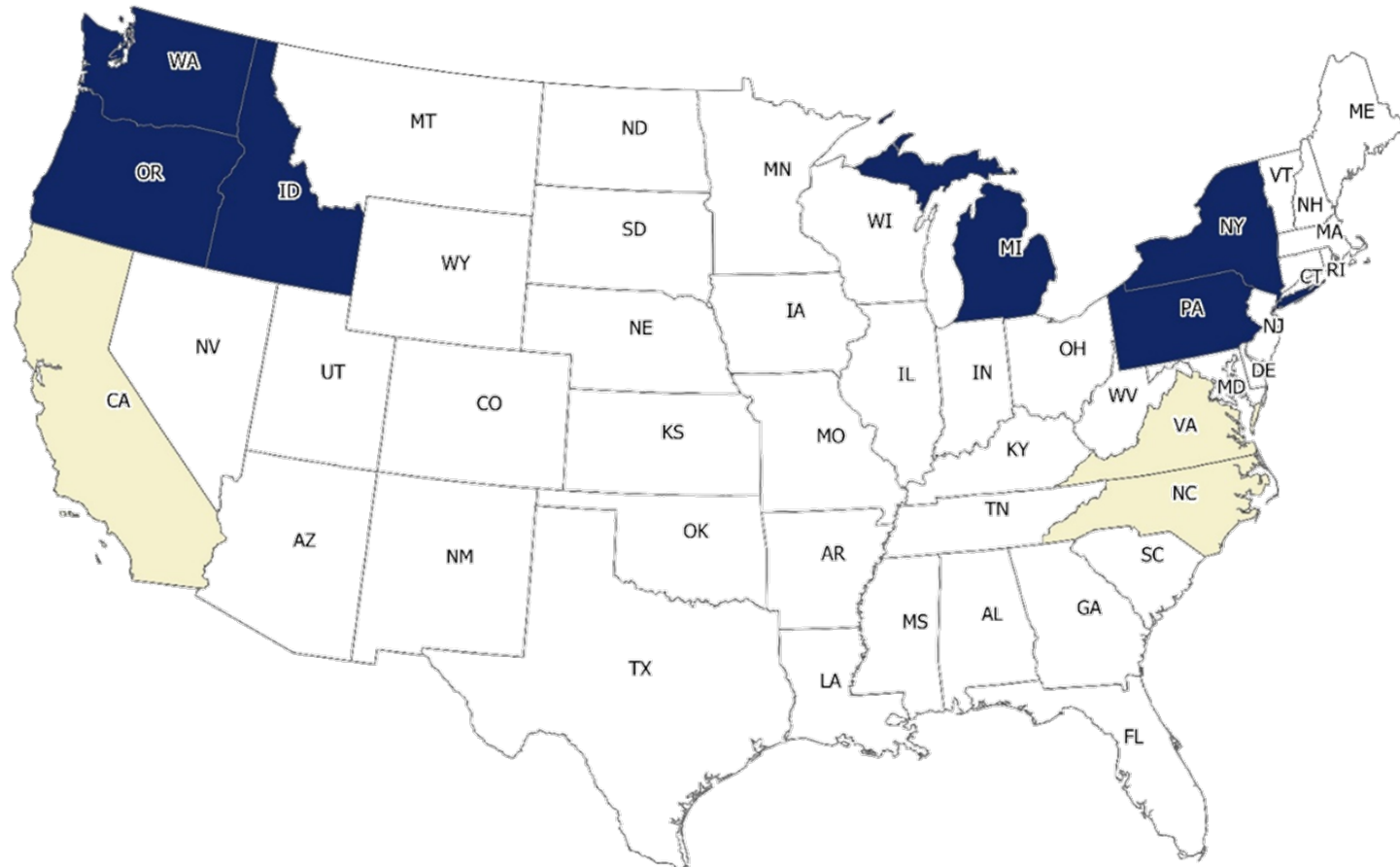
- Apple Tree Program Insures the Tree
- Tree Based Dollar Amount of Insurance (Plan 40)
- Apple Tree Code = **0184**

NOTE: Separate from the Apple APH Crop Insurance Program

- Coverage levels from 50% to 75%
- Price Election by Type
- Coverage Level by Type

Program Availability

Idaho, Michigan, New York, Oregon, Pennsylvania, Washington



Apple Tree Program Dates

NOTE: 2020 RY; 2021 CY

- Sales Closing Date: **April 15**
- Insurance Period: **July 1 – June 30**
- Cancellation and Termination: **April 15**
- Premium Billing: **March 1**
- Acreage Reporting Date: **Jul 15**



Optional Coverages

Module 2: Fire Blight Coverage

Offered as mandatory/optional endorsement based on location

Module 3: Occurrence Loss Option (OLO)

Loss threshold equal to 5% of the unit's value (10% with Fire Blight Endorsement)

Module 4: Comprehensive Tree Value Endorsement (CTVE)

Available for Stage 2 & 3 trees with typical production

Program Summary - Actuarials



Types / Practices	T/P 01
Type Practice	Varietal Group B 115 High Density Stage 1 (Irr) 268

**T/P Code (72 total combinations) is based on:
 Variety, Stage, Density, Organic Practice**

Irrigation Practice Irrigated	Irrigated 002
Cropping Practice SD or HD	High Density 066
Organic Practice N/A, Org(Cert), Org (Trans)	No Organic Practice Specified 997
Interval Stage 1, 2, 3	Stage 1 011

Varietal Groups

- Varietal Groups Specified on SP
- May vary by state

Group A	Group B	Group C	Group D
Honeycrisp	Ambrosia	All Other	Autumn Glory
Pazazz	Aurora Golden Gala		Cosmic Crisp
SweeTango/Minneiska	Envy		Kanzi
	Fuji		Opal
	Gala		Pacific Rose
	Golden Supreme		Smitten
	Jazz		EverCrisp
	Pinata		
	Cripps Pink (Pink Lady)		

Cropping Practice

Standard Density/High Density – Orchards containing the number of trees per acre specified in the Special Provisions as follow:

Practice	Trees Per Acre
Standard Density	Less than or equal to 650
High Density	Greater than 650

Intervals (Staging)

Stage - Each full 12-month period based on the age of the tree and tree density.

Stage	Age of Tree	
	Standard Density	High Density
I	1-2 Years	1 Year
II	3-6 Years	2-3 Years
III	7+ Years	4+ Years

Intervals (Staging)

- Age/Leaf year is required to determine the stage of the trees and for insurability requirements in accordance with the CP.
- The 12-month period is the complete 12-month periods that have passed since the crop was set out/grafted (see the CISH, Exhibit 7)
- To determine Age/LeafYear use the following formula where:

X = Policy Crop Year Y = Set Out/Graft Year

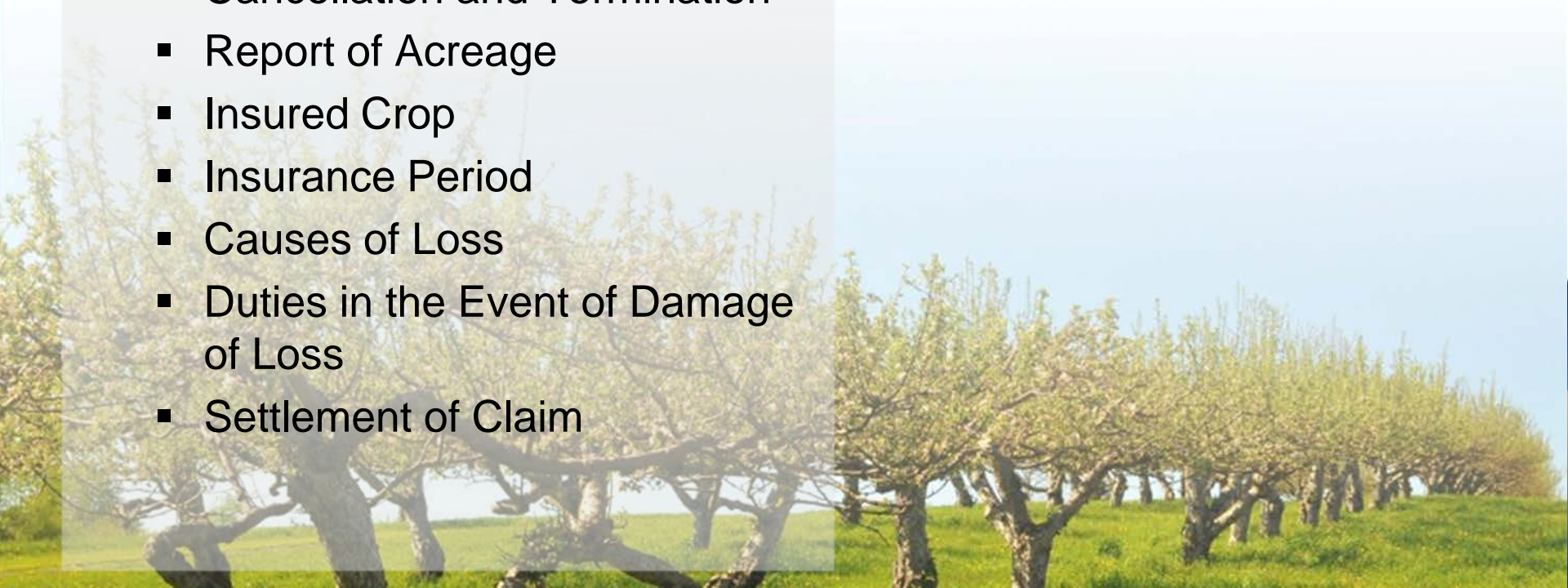
Formula: $(X - Y) - 1 = \text{Age/Leaf Years}$

e.g. $2021 - 2017 - 1 = 3 \text{ years} = \text{Stage II}$

Module 1

○ CROP PROVISIONS

- Definitions
- Unit Division
- Guarantee, Coverage Levels
- Cancellation and Termination
- Report of Acreage
- Insured Crop
- Insurance Period
- Causes of Loss
- Duties in the Event of Damage of Loss
- Settlement of Claim



Program-Specific Forms



Form Name	Location	Document
Producer Pre-Acceptance Worksheet (Apple Trees)	Exhibit 3	Apple Tree CISH
Grove Identification Map	Exhibit 4	Apple Tree CISH
Pre-Acceptance Inspection Report (Apple Trees)	Exhibit 5	Apple Tree CISH
Trellis Inspection Report	Exhibit 6	Apple Tree CISH
Summary of Revenue History *(CTVE optional)	Exhibit 9	Apple Tree CISH
Apple Tree Appraisal Worksheet	Exhibit 3	Apple Tree LASH
Apple Tree Production Worksheet	Exhibit 4	Apple Tree LASH
Apple Tree Certification Form	Exhibit 5	Apple Tree LASH

** Application and Acreage Report also required

Forms Due at Sales Closing

Due April 15:

- Application; and
- For Initial Year of Application (2020):
 - Pre-Acceptance Worksheet (PAW)
 - *Exhibit 3 CISH*
 - Grove Identification Map
 - *Exhibit 4 CISH*

Producer Pre-Acceptance Worksheet (PAW)

- Applicants for insurance certify on the PAW:
 - The separate blocks in the unit,
 - The stage-blocks within each block, and
 - The numbers, stages and types (varietal group) of trees to be insured; and
 - Any other required information.

Grove ID Map

- In addition to the PAW, the applicant provides a Grove Identification Map showing:
 - Block locations,
 - Stage-blocks, and
 - Other tree information (types, varietal groups).

Self Certification

- Policyholders are not required to submit a completed PAW or maps in subsequent years **unless changes occur** (the numbers of trees and/or stage-block designations or errors are found).
- Otherwise, producers certify in the remarks “No Change”.

Additional Forms



○ Pre-Acceptance Inspection Report (PAIR):

- 1) For all **new applicants** (the PAIR will be completed by June 30 prior to insurance attaching on July 1) and **when the Fire Blight Endorsement is in effect** (optional election or mandatory);
- 2) For new added units (trees not previously in the operation);
- 3) When any acreage of trees is added under an existing policy (new tree acreage not previously in the operation meeting insurability);
- 4) The year following any substantial damage;
- 5) For damage or probable loss, when an indemnity will be claimed on any unit;
- 6) Every fifth year for trellis orchards; or
- 7) When triggered by the PAW (e.g. tree damage, change in the number of trees, stage changes, etc.).

○ Trellis Inspection Report

Acceptable Records

- Producers are not required to submit records unless:
 - Required during a PAIR inspection or claim inspection, or
 - Due to discovery of a discrepancy between PAW information and the actual information.
- May Include:
 - Planting records (grove management records)
 - Insurance provider recorded evidence,
 - i.e., PAIR, acreage reports, claims

Additional Forms



If there is a Notice of Loss:

- Apple Tree Appraisal Worksheet
- Apple Tree Production Worksheet

In a scenario where trees are to be removed or reset, insured will complete and mail within five days of the removal/reset:

- Apple Tree Certification Form

Agent Responsibilities

- Assist the insured with the completion of:
 - Annual acreage report; and
 - Advise insureds of their responsibility to comply with all of the reporting requirements of the policy.
- Assist the insured to ensure that the stage-blocks reported by the insured are established in accordance with the definition of stage found in the CP and the stage table in the CISH.
- Assist the insured in correctly reporting the number of trees by block within the unit by utilizing plat maps, Grove Identification Maps, past acreage reports, and/or other relevant sources.

Section 1. Definitions

Adjustment factor – A factor contained on the actuarial documents used to determine the percent of damage and damage value of fully damaged trees for purposes of determining an indemnity.

Age (of tree) – The number of complete 12-month periods that have elapsed since the month the trees were set out or were grafted, whichever is later. Age determination will be made for each unit, or portion thereof, as of July 1 of each crop year.

Section 1. Definitions

Amount of insured damage – The dollar amount determined by multiplying the damage value times the coverage level. **Used in determining the OLO indemnity.**

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 in the unit times the applicable tree reference price for each stage-block, totaling these values, and then multiplying this result times the coverage level selected by you subject to any limit contained in the Special Provisions.

Section 1. Definitions

Block – A stand of trees of the same type on acreage in a unit that shares a common boundary with no discernible change in the planting pattern

Bud union – The location on the tree trunk where a bud from one tree variety is grafted onto the rootstock of another variety

Crop year - The period beginning **July 1** and extending through **June 30** of the following year, and is designated by the calendar year in which the period **ends**.

Section 1. Definitions

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 by the insured's tree reference price for each stage-block, multiplying this result for each stage-block by the percent of damage applicable to each stage-block, and totaling these values.

Damaged (damage) – A tree that requires removal or reset due to injury to the main trunk, central leader, or roots (including leaning and toppling) due to an insured cause of loss that occurs during the insurance period.

Section 1. Definitions

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- (a) Destroyed tree – For stage I – III trees damaged due to insured causes, any insurable tree that:
- (1) Is dead (including trees with trunks broken at or near the bud union);
 - (2) For a standard density orchard:
 - (i) Is a stage I – II tree that is toppled or leaning and you and we agree that reset is not practical; or
 - (ii) Is a stage III tree that is toppled or leaning;
 - (3) For a high-density orchard is a stage I – III tree that is toppled or leaning and you and we agree that reset is not practical;
 - (4) Is missing; or

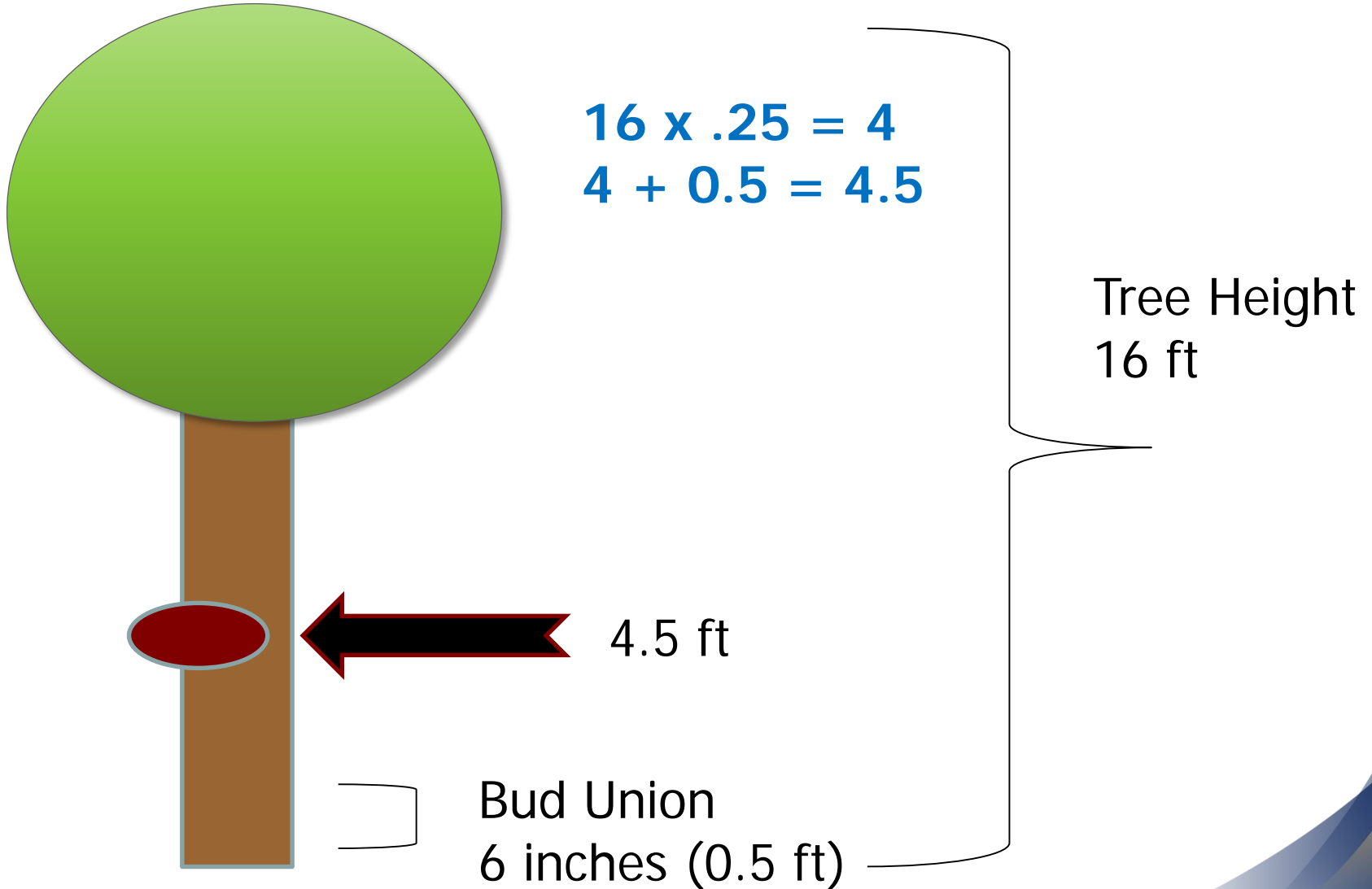
Section 1. Definitions

(5) If the Fire Blight Endorsement is in effect:

- (i) Is 1 to 6 years of age with fire blight cankers on the trunk or central leader; or
- (ii) Is seven (7) or more years of age with fire blight cankers on the trunk or central leader at a height above the bud union equal to 25 percent of the height of the tree (e.g. location height equals 4.5 feet for a 16-foot tree with a bud union height of 6 inches).

(b) Destroyed trees are considered 100 percent damaged.

FBE Destroyed 7+ Age Trees



Section 1. Definitions

Fully damaged tree –

- (a) An insurable tree requiring reset;
- (b) A fully damaged tree will be considered 100 percent damaged but is not destroyed.

Leaning (lean) – A tree that is leaning more than 15 degrees from the upright position



Section 1. Definitions

Occurrence Loss Option - An option that may be elected by you that **eliminates the unit deductible** in accordance with section 15 of the Crop Provisions.

Practice – A practice as identified in the Special Provisions.

Remove (removal, removed, removing) – Conducting the necessary operations to prepare the planting site for a replacement tree including removing the damaged tree.

Replacement tree – A tree set out in an existing orchard in the same location of a damaged tree that cannot be reset or is otherwise destroyed.

Section 1. Definitions

Reset – Restoration of a toppled or leaning tree by:

- (a) Returning the tree to approximately the same position the tree occupied before it was caused to topple or lean; or
- (b) Stabilizing a leaning tree by:
 - (i) Installing a stake (a wooden or metal post of a standard size); and
 - (ii) Carrying out the cultural practices necessary to reestablish or maintain the tree.

For loss adjustment purposes only, reset is applicable only for stage I and II trees in standard density orchards and all stages in high density orchards.

Set out – Transplanting a tree into the orchard.

Section 1. Definitions

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 apple orchard that requires him or her to maintain the apple orchard using accepted orchard management practices. The lease agreement must clearly state the tenant or operator is entitled to his or her insured share of any indemnities under the Apple Tree Crop Provisions. A copy of the lease must be on file with us at the time insurance attaches. However, only for the purpose of determining the amount of indemnity, your share will not exceed your share at the time of loss.

Section 1. Definitions

Stage-block - A block in which **at least 75 percent** of the trees are the same stage.

- 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.
- For blocks in which **at least 75%** of the trees are the same stage, the producer **may** report the blocks as one stage-block.*

**NOTE: The producer does not HAVE to report this way, but MAY, if they choose, for simplification and ease of administrative burden.*

75/25 Rule (No Option)

Example 3: An insured has one unit of standard density trees containing 300 stage III trees, 100 stage II trees, and 100 stage I trees.

The block must be reported as follows:

Block No.	Stage-Block	Stage	No. of Trees
1	1-III	III	300
1	1-II	II	100
1	1-I	I	100

Not Optional: Insured Must Report as Shown

Since $300/500 < 75\%$

75/25 Rule (Options)

Example 1: An insured has one unit of standard density trees containing 400 stage III trees, 50 stage II trees, and 50 stage I trees.

The block may be reported as follows:

Option 1:

Block No.	Stage-Block	Stage	No. of Trees
1	1-III	III	500

Since at least 75% of the trees are Stage-III, the entire block can be considered a Stage-III block.

The insured may report the blocks as follows:

Option 2:

Block No.	Stage-Block	Stage	No. of Trees
1	1-III	III	450
2	2-I	I	50

Section 1. Definitions

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**.

In the figures below, black borders illustrate a separate

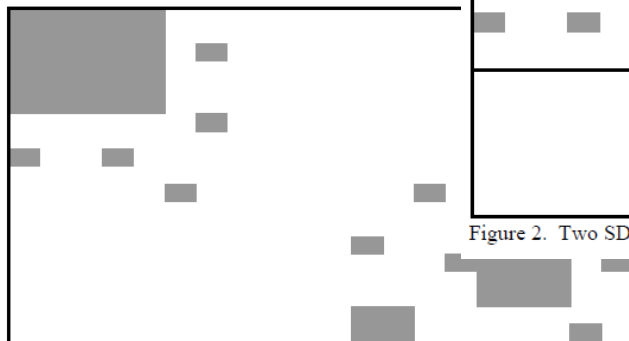


Figure 1. Entire unit as SDT.

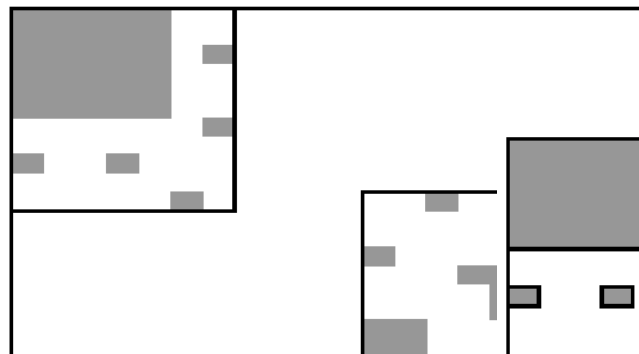


Figure 2. Two SDT defined by outermost damage in ea

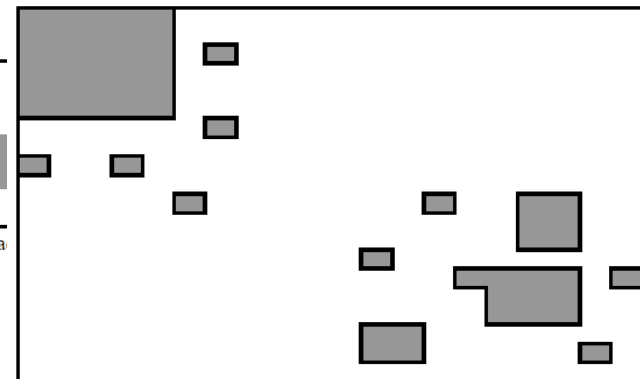


Figure 3. Multiple SDT defined by each damaged area.

Section 1. Definitions

Toppled – A tree that is leaning more than 60 degrees from the upright position or is leaning and has an exposed root system.

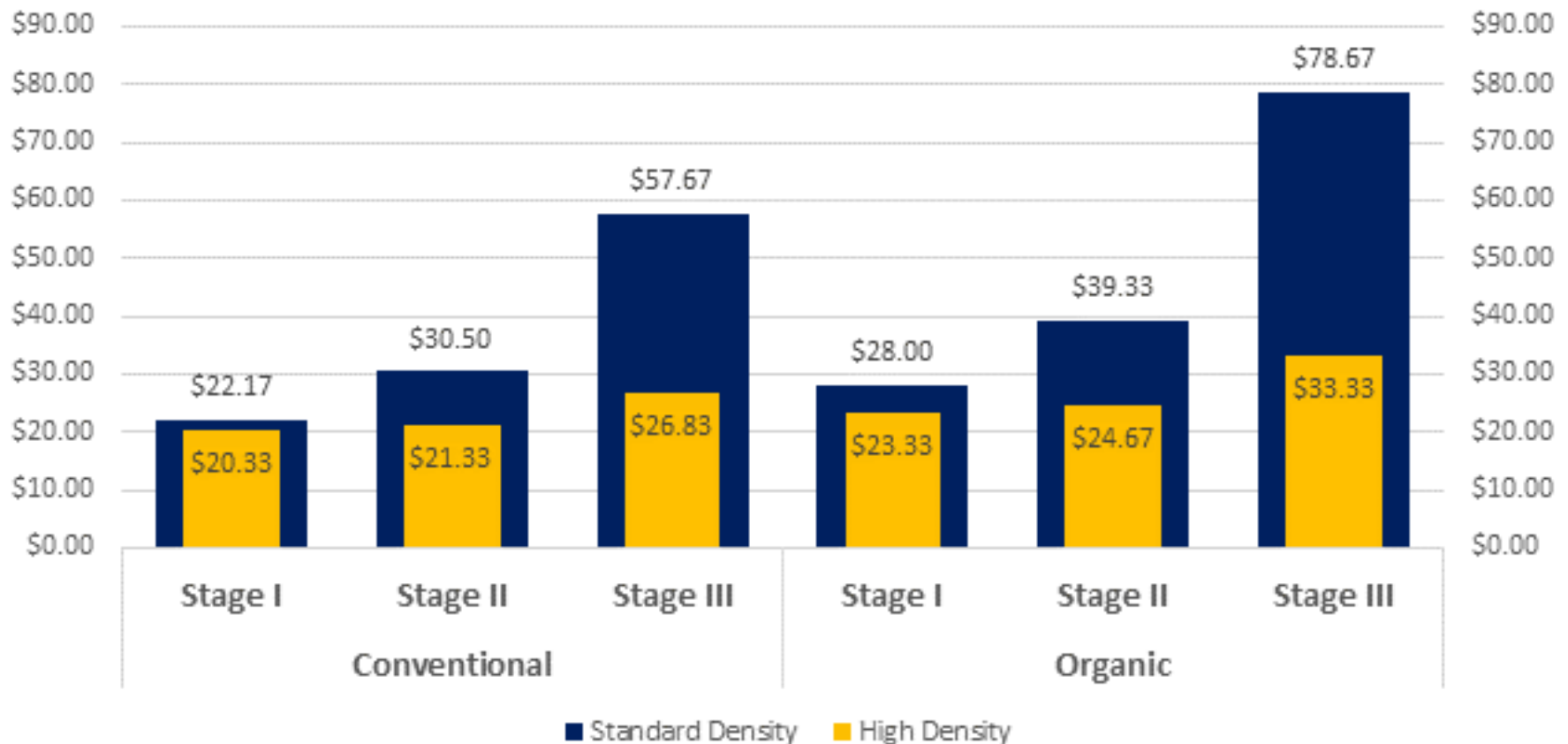


Section 1. Definitions

Tree reference price – The price per tree, by stage, type, and practice, listed on the actuarial documents that is used in calculating the unit value, the amount of protection, and the damage value.

Tree Reference Prices

Average Tree Reference Price by Type



Section 1. Definitions

Type – A varietal group of apple trees as designated in the Special Provisions.

Undamaged – A tree that does not require removal or reset.

Underreport Factor (URF) - A factor determined by us and used to adjust your indemnity **when you have underreported the number of insurable trees** in a unit. 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.

Section 1. Definitions

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 the applicable tree reference price for the stage, totaling these values, and multiplying this result times one (1.0) minus the coverage level.

Section 1. Definitions

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 the applicable **tree reference price** for the stage, totaling these values, and then multiplying this result **times the coverage level** selected by you.

Section 2. Unit Division

Units By:

- (a) Basic unit in accordance with the Basic Provisions;
- (b) Optional units may be established only if each optional unit is:
 - (1) Located on non-contiguous land;
 - (2) A separate orchard located on contiguous acreage that is separated from any other orchard on such acreage and that meets the minimum distance and acreage requirements specified in the Special Provisions; and
 - (3) Established in accordance with section 34(c)(3) of the Basic Provisions.

NOTE: The minimum distance and acreage required to qualify a separate orchard as an optional unit are one (1) mile and ten (10) acres.
- (c) Enterprise units – See Section 2(c) of the Crop Provisions.

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

You may select [a different coverage level for each insured type](#) in the county insured under this policy.

- *For example, the insured may elect 75% coverage level on one type and 65% on the other type.*

However, if the insured elects the Catastrophic Risk Protection (CAT) level of insurance, the CAT level of coverage will be applicable to all insured apple tree acreage in the county.

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

If the actuarial documents designate separate prices by type, you may select a different price for each type so designated in the Special Provisions, 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, the insured may elect 100% of the maximum price election for one type and 75% of the maximum price election for another type.*

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

After the initial crop year of insurance, your coverage level election, price percentage and optional coverage may only be changed on or before the sales closing date prior to the beginning of the crop year. The insured may elect:

- By the sales closing date:
 - (i) A higher coverage level;
 - (ii) A higher price percentage;
 - (iii) To add optional coverage; or

- By the acreage reporting date:
 - (i) To increase the insured share; or
 - (ii) To report additional insurable trees such that the amount of protection will increase by more than 10 percent.

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



If insured damage occurs after the sales closing date but before the date insurance attaches for the crop year, any election or change you have made under section 3(d)(1) or (2) of the Crop Provisions will not be effective for the crop year for which the election or change was made.

Sections 4 and 5. Important Dates

- The contract change date is **January 31** preceding the cancellation date.
- The cancellation and termination dates are **April 15** before the beginning of the crop year.



Section 6. Report of Acreage

- The insured must submit by the acreage reporting date:
 - Acreage report;
 - Report by stage-block for each type and practice the:
 - Tree stage; and
 - Number of trees (insurable and non-insurable).
 - PAW and grove identification map; and
 - Revised worksheet and map if any trees are added in a succeeding crop year.

Section 8. Insured Crop

All insurable apple trees:

- (1) Grown in the insurable county listed on your application;
- (2) That are adapted to the production area;
- (3) In which the insured has a share;
- (4) That are at least one year of age on July 1 of the current crop year;
- (5) That will produce a yield typical for a tree of the same age as the subject trees;
- (6) That are grown for the production of a commodity (i.e. apples) to be sold for human consumption; and
- (7) For which you are insured under the Fire Blight Endorsement as specified in the SP.

Section 8. Uninsurable Trees

In addition to the exclusions listed in section 8 of the BP, the insured crop will not include any trees that:

- 1) Are non-grafted seedlings (grown from seed);
- 2) Are unsound, diseased, or unhealthy;
- 3) Are toppled or leaning and that have not been reset;
- 4) Were damaged before the beginning of the insurance period. If trees suffered such damage the previous crop year, then insurance will not attach until the previous year's damage is determined, the insured submits a revised acreage report, and the trees are accepted by the AIP; or
- 5) Are inspected by the AIP and considered unacceptable.

Section 10. Insurance Period

- Sales Closing Date: **April 15**
- Coverage begins **July 1** unless the AIP notifies the insured that all or part of the trees are not insurable.

- Coverage ends on any trees within a unit as specified in the Basic Provisions at:
 - Total destruction of the insured crop;
 - Final adjustment of a loss on a unit;
 - Abandonment of the insured crop; or
 - The **June 30** calendar date for the end of the insurance.

NOTE: Coverage remains in effect on trees that have not been affected by an event.

Section 11. Causes of Loss

1. Freeze
2. Wind (leaning or toppled tree damage)
3. Hail
4. Volcanic Eruption (volcanic ash)
5. Fire (unless weeds & other forms of undergrowth have not been controlled or pruning debris has not been removed from the orchard)
6. Insects, diseases, and other pathogens, if allowed in the Special Provisions or by a separate endorsement (excludes damage due to insufficient or improper application of applicable control measures)
7. Failure of the irrigation water supply (if caused by unavoidable, naturally occurring event that occurs during the insurance period)



Section 11. Exclusions

Exclusions in addition to causes of loss excluded in section 12 of the BP:

- (1) Wind damage due to the failure of inadequately constructed or poorly maintained trellis system; or
- (2) Damage other than actual damage to the tree due to the causes specified above is not insured except as provided in section 13(e) of the CP.

Section 12. Duties in the Event of Damage or Loss

If intending to claim an indemnity, the insured must not reset or remove any damaged trees until the unit is inspected and consent is given by the AIP.

The insured must submit a claim within:

- 1) **60 days** of the latest date for the end of the insurance period for all acreage in the unit, or
- 2) **Within twelve (12) months** after the calendar date for the end of the insurance period in the crop year of damage if, within the **60-day period**, the:
 - (a) Percent of damage cannot be determined, or
 - (b) Period of time to remove or reset damaged trees exceeds the 60-day period.

13. Settlement of Claim

Step 1. Calculate the Unit Value & Underreport Factor

Step 2. Calculate the Unit Deductible

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

Step 4. Damage Value minus the Unit Deductible

****If Step 4 is ≤ 0 , NO INDEMNITY. If Step 4 > 0 , continue.**

Step 5. The result of Step 4 times the Underreport Factor and Share

Step 6. From the result of Step 5, subtract the total of any previous indemnities to determine the indemnity due for the most recent loss.

Section 13. Settlement of Claim

- (b) The percent of damage for each stage-block within the stand of damaged trees will be determined separately for 100 percent damaged trees (destroyed or fully damaged).

- (c) Trees that are 100 percent damaged will be determined as follows:
 - (1) Any destroyed tree will be considered 100 percent damaged;
and
 - (2) Any fully damaged tree (a tree that requires resetting) will be considered 100 percent damaged.

Damage Classifications



Tree Damage Description	Tree Classification
A tree that does not require reset or removal.	Not Damaged
A tree is toppled or leaning and can be reset. SD – Stages I – II only; HD – All Stages	Fully Damaged (100 Percent)
A tree that: <ol style="list-style-type: none"> (1) Is dead (including trees with trunks broken at or near the bud union; (2) SD Orchards: <ul style="list-style-type: none"> • Stage I or II tree that is toppled or leaning and reset is not practical. • Stage III tree that is toppled or leaning. (3) HD Orchards: <ul style="list-style-type: none"> • Stage I – III tree that is toppled or leaning and reset is not practical. (4) (FBE) A tree that is: <ul style="list-style-type: none"> • 1-6 years of age with fire blight cankers on the trunk or central leader; or • Seven (7) or more years of age with fire blight cankers on the trunk or central leader at a height above the bud union equal to 25 percent of the height of the tree [(e.g., location height equals 4.5 feet for a 16-foot tree with a bud union height of 0.5 feet (6 inches)); or (5) Is missing. 	Destroyed (100 Percent)

Section 13. Settlement of Claim

- (d) Determining the percent of damage for 100 percent damaged trees by:
 - (1) Separately dividing the number of destroyed and fully damaged trees by the number of trees in the appraisal sample for each stage block within a stand(s) of damaged trees.
 - (2) Multiplying each applicable result by:
 - (i) 1.0 for destroyed trees; and
 - (ii) The applicable adjustment factor for fully damaged trees (reset trees) contained in the Special Provisions.

Section 13. Settlement of Claim

Adjustment Factor-Fully Damaged (Reset) Trees Standard Density, Stages I and II

ID	MI	NY	OR	PA	WA
0.41	0.52	0.35	0.42	0.33	0.42

Adjustment Factor - Fully Damaged (Reset) Trees High Density, Stages I - III

ID	MI	NY	OR	PA	WA
0.25	0.25	0.21	0.26	0.20	0.26

Section 13. 80% Rule

- (e) If the total percent of damage for destroyed trees within a stand of damaged trees for a stage-block is greater than 80% due to an insured cause of loss, the percent of damage for the stage block within a stand of damaged trees for the stage-block will be considered to be 100% unless the percent of damage for destroyed trees is reduced in accordance with section 13(i).

Section 13. Percent of Damage

- (f) The applicable percent damage for the crop year will not exceed 100 percent for any stage-block or portion of a stage-block within a stand of damaged trees.
- (g) Any damage due to uninsured causes will not be included in the percent of damage for the unit.



Section 13. Damage Determination

- (h) Percent of damage is determined not later than:
- (1) The AIP's determination of the total destruction of insured trees on the unit; or
 - (2) June 30 of the crop year unless the percent of damage cannot be determined; in such cases, it will be determined not later than twelve (12) months after the calendar date for the end of the insurance period for the crop year in which the insured damage occurred.
 - (3) The 12-month period in section 13(h)(2) may be extended if authorized by FCIC.

Section 13. Determining Damage

- (i) (1) Destroyed trees must be removed (upon AIP's authorization to do so) to count as a destroyed tree.
- (i) (2) If you do not remove such damaged trees in the stand of damaged trees or any portion of the damaged trees, the percent of damage will be based on the actual number of trees removed.
- (i) (3) If the percent of damage:
 - (i) Is based on the number of trees considered fully damaged, such trees must be reset.
 - (ii) If you do not reset the damaged trees or any portion of the damaged trees in the stand of damaged trees, the percent of damage will be based on the actual number of trees reset.

Section 14.

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- The late and prevented planting and written agreement provisions of the Basic Provisions are not applicable.

Module 2

○ Fire Blight Endorsement

- Applicability
- Definitions
- Eligible Trees
- Terms and Conditions
- Report of Acreage
- Causes of Loss
- Duties in the Event of Loss



Fire Blight Overview

- Fire Blight – A bacterial disease that can infect the blossoms, new green shoots, branches, and other parts of apple trees and other members of the *Rosaceae* family.
- *The name “fire blight” is derived from the impact that infestation with the bacteria has on a tree: leaves appear as if they have been burnt*
- *Fire blight can cause the death of an apple tree*
- *Effective control tools & strategies are available & in use for fire blight*

Fire Blight Coverage

- Optional in Idaho, Oregon, & Washington
- Mandatory in Michigan, New York, & Pennsylvania
- May not elect if apple trees are insured under CAT or if ALL trees are organic
- Occurrence Loss Option (OLO) trigger at 10% due to differentiated risk



Applicability

- You must have the Basic Provisions and AT Crop Provisions in force to elect this Endorsement.
- Endorsement must be elected in writing on or before SCD.
- Endorsement will apply to all eligible acreage of all types of apple trees insurable under the AT Crop Provisions where the actuarial documents provide fire blight coverage.

Applicability

- You may **not** elect this endorsement:
 - With CAT coverage;
 - If all your trees are grown under organic production practices.
- The Endorsement will continue in effect until cancelled by either you or the AIP by the cancellation date. If at any time your Apple Tree insurance policy is cancelled or terminated, this Endorsement is automatically cancelled or terminated as of the same date.

Definitions

Damage – In addition to the definition of damage in the Crop Provisions, damage due to an insured cause of loss will include a tree that is destroyed due to fire blight.

Destroyed – See the definition in section 1 of the Crop Provisions.

Fire Blight Cankers



Eligible Trees

- (a) All insurable trees that:
 - (1) Are located in a county where the actuarial documents provide fire blight coverage;
 - (2) Have been set out or grafted at least 12 months prior to July 1 of the current crop year; and
 - (3) Are not grown under an organic practice.
- (b) If the PAIR inspection determines that any trees in a unit are infected with fire blight before insurance initially attaches, then no trees in the unit will be insured under this Endorsement unless:

Eligible Trees

- (1) You obtain lab tests that indicate no trees are infected;
 - (2) You destroy all infected trees and a subsequent inspection finds no evidence of fire blight;
 - (3) You prune all infected portions of infected trees and remove all pruning debris from the orchard, our inspection determines that your pruning has effectively removed all evidence of infection, and you implement a comprehensive preventative treatment program approved by us. Any tree which cannot be pruned to remove the infected portions from the tree or is considered destroyed must be removed from the orchard;
- (c) Fire blight will not be an insured cause of loss for the unit if the laboratory results or our inspection under (b)(1) – (3) indicates any trees are infected with fire blight.

PAIR – Fire Blight

- Per the CP (see section 8(b)(2), (4), and (5):
 - If the Fire Blight Endorsement is in effect (i.e. optional or mandatory), any trees in a unit determined to be uninsurable due to any pre-existing damage including fire blight infection based on the PAIR or prior to insurance attaching for subsequent crop years based on a PAIR or PAW, as applicable, will be uninsurable for fire blight and **all other insured causes** and would be reported as uninsurable on the acreage report.
 - Fire Blight will not be an insured cause for insurable trees in the unit (i.e. trees with no pre-existing damage).

Terms and Conditions



- (a) Except when in conflict with this Endorsement, all provisions of the Basic Provisions and Apple Tree Crop Provisions apply.
- (b) Coverage under this Endorsement applies only to destroyed trees due to fire blight as defined in section 1 of the Crop Provisions.
- (c) See the Special Provisions for any additional requirements and limitations regarding fire blight coverage.
- (d) The coverage level and price percentage elected by you under section 3 of the Crop Provisions will apply to this Endorsement.

Report of Acreage

The insured is not required to file a separate acreage report if they elect this Endorsement. The insurance coverage for this Endorsement will be determined from the accepted acreage report submitted under the Basic Provisions and Crop Provisions.



Causes of Loss

- (a) In addition to section 11 of the Crop Provisions **fire blight** is an insured cause of loss under this Endorsement.
- (b) In addition to the exclusions contained in section 12(b) of the Basic Provisions, *fire blight will not be an insured cause of loss if recommended fire blight prevention and control practices are not followed.*

Duties in the Event of Damage or Loss

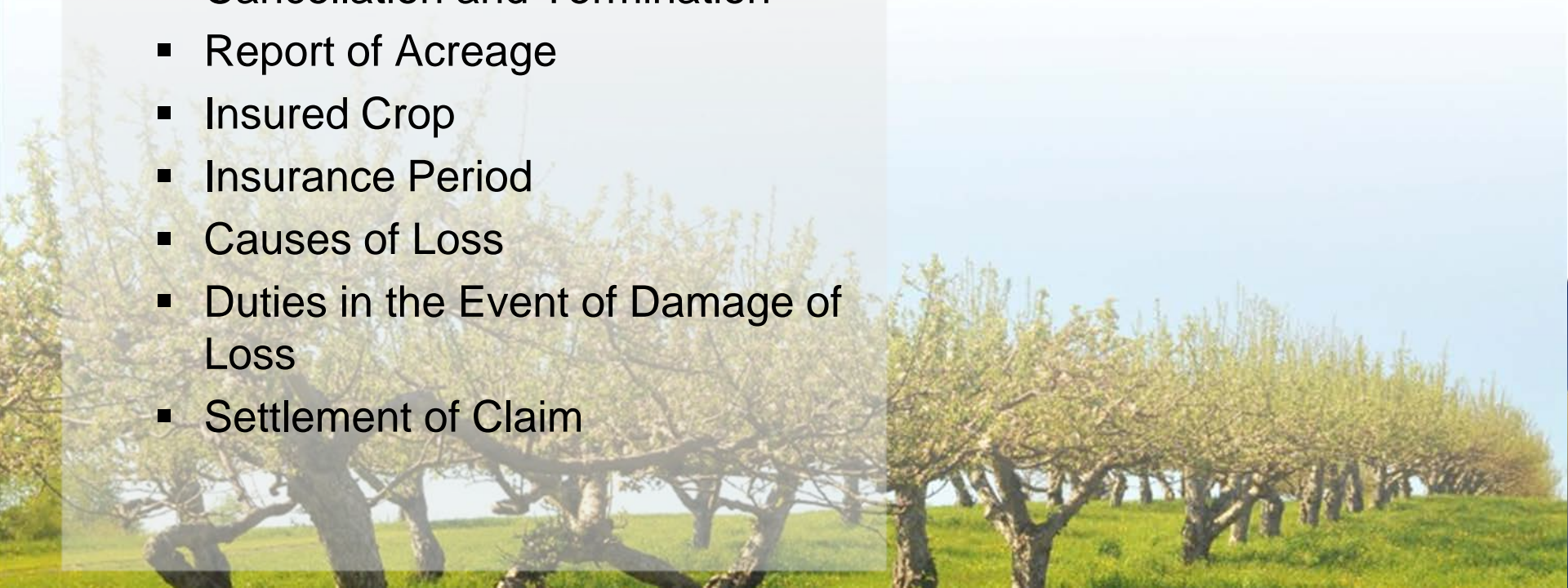
In addition to requirements of the Basic and Crop Provisions, *you must notify us immediately upon your discovery that fire blight has infected any portion of the insured unit.*

- (a) The AIP will inspect the unit to determine the extent of fire blight infection and what control measures are being implemented. The AIP will identify all infected trees that are considered destroyed and authorize the removal of such trees.
- (b) The insured must not remove any trees without AIP consent.
- (c) The insured must remove all destroyed trees which the AIP determines are destroyed and which are authorized for removal. Any such trees that are not removed will not be considered destroyed or used to determine the percent of damage.

Module 3

○ Occurrence Loss Option

- Definitions
- Unit Division
- Guarantee, Coverage Levels
- Cancellation and Termination
- Report of Acreage
- Insured Crop
- Insurance Period
- Causes of Loss
- Duties in the Event of Damage of Loss
- Settlement of Claim



Occurrence Loss Option (OLO)

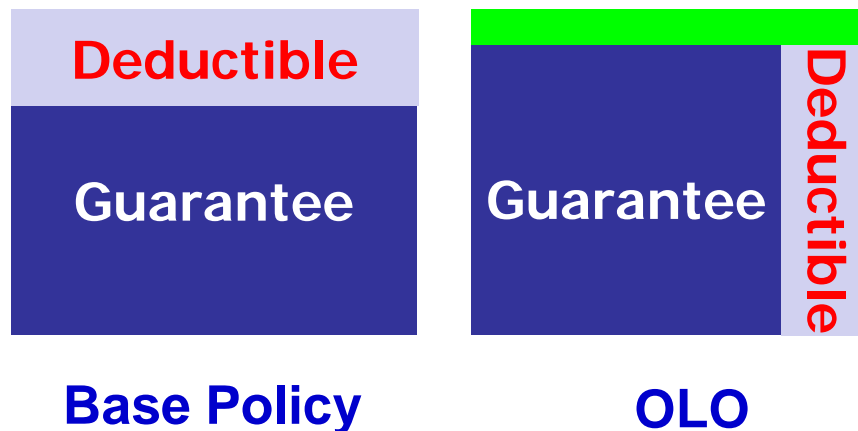
Section 15 of the Crop Provisions

- Available with buy-up coverage for additional premium;
- Eliminates *Unit Deductible* from indemnity calculation if a minimum damage threshold is met;
- May not be elected with CAT;
- May be elected with the Fire Blight Endorsement; and
- May be elected with the CTVE.

Occurrence Loss Option

Once trees have been damaged/destroyed to the point that 5% (10% if FBE is elected) of the unit's value has been lost, the option pays an indemnity for each tree damaged due to insurable causes

Indemnity = Amount of Insured Damage x Coverage Level



Section 15. OLO

OLO Indemnity Calculation

Step 1: Calculate Unit Value and Underreport Factor

Step 2: Multiply the Unit Value by 5% (10% with FBE)

Step 3: Calculate the Damage Value

Step 4: Calculate the Amount of Insured Damage (Damage Value times Coverage Level)

If Amount of Insured Damage \geq 5% (10% FBE) of Unit Value:

Indemnity = Amount of Insured Damage x Underreport Factor x Share

If Amount of Insured Damage $<$ 5% (10% FBE) of Unit Value:

No indemnity is due (10% for FBE)

Examples, Assumptions

Standard Density
3,000 apple trees

600 Stage I
200 Stage II
2,200 Stage III

- Elects 75% coverage level
- Elects 100% price election
- Has 100% share
- Actuarial documents provide:
 - 0.5% premium rate
 - Tree Reference Prices:
 - \$25 (Stage I)
 - \$29 (Stage II)
 - \$51 (Stage III)

Example – Base Policy

Amount of Protection and Premium

- Amount of Protection

\$99,750 =

$$[(600 \times \$25) + (200 \times \$29) + (2,200 \times \$51)] \times 75\%$$

- 0.5% premium rate for base policy
- Premium Calculation

\$499 =

$$\$99,750 \times 100\% \text{ share} \times 0.5\% \text{ premium rate}$$

Example – OLO Amount of Protection and Premium

- Amount of Protection (same as base policy)

Apple Trees = \$99,750

1.25% premium rate for base policy with OLO

- Premium for Base Policy with OLO

- **\$1,247** = \$99,750 x 100% share x 1.25% premium rate

Claim Example – Base Policy

○ Base Policy Example

Freeze damage to Apple Trees

- 100% damage (destroyed) to a SDT of **1,000 stage III trees**
- *No prior losses during crop year*

Claim Example – Base Policy

- Base Policy Example – Indemnity Calculation

Unit Value = \$99,750 = Amount of Protection

Underreport Factor = 1.000

Unit Deductible = \$33,250

= [(600 x \$25) + (200 x \$29) + (2,200 x \$51)] x 25%

Damage Value = \$51,000

= (1,000 Stage III trees x \$51 x 100% damage)

Damage Value – Unit Deductible = \$17,750

= \$51,000 - \$33,250

Indemnity = \$17,750 = \$17,750 x 1.000 URF x 100% share

Claim Example – OLO

- OLO Claim Example

Freeze damage to Apple Trees

- 100% damage (destroyed) to a SDT of 200 stage III trees
- No prior losses during crop year

Example of Claim with OLO

- OLO Claim Example Calculation

Unit Value = **\$99,750** = Amount of Protection

Underreport Factor = 1.000

5% of Unit Value = \$4,988 = **\$99,750** x 0.05

Damage Value = **\$10,200** = (200 x 100 percent of damage x **\$51**)

Amount of Insured Damage = \$7,650 = **\$10,200** x 75%

Amount of Insured Damage > 5% of Unit Value (\$7,650 > \$4,988)

Indemnity = **\$7,650** = \$7,650 x 1.000 URF x 100% share

Module 4

○ Comprehensive Tree Value Endorsement

- Purpose
- Overview
- Definitions
- Examples
 - Amount of Protection
 - Premium
- Indemnity Calculations
 - No OLO
 - CTVE w/ OLO



Comprehensive Tree Value Endorsement (CTVE)



Optional Coverage

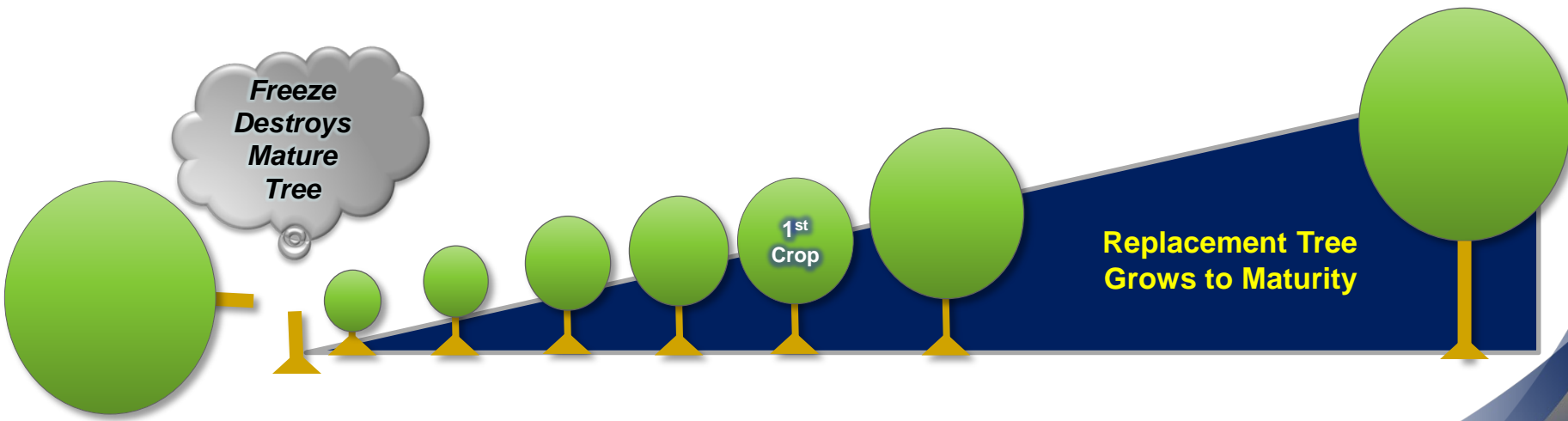
- Provides coverage for the tree's value as a business asset; based on present value of the **future** expected crop production
- Not available for stage I blocks
- Only those trees in stage II blocks considered fully damaged (100 percent damage – reset only) and stage II - III blocks considered destroyed are eligible for an indemnity under this endorsement.
- Indemnity paid in two steps
 - 50% paid 30 days after claim approved
 - 50% paid after replacement trees planted

CTVE Provisions

CTVE coverage is available:

- Section 1. In return for payment of additional premium.
- Section 2. If elected on or before April 15. (Coverage is continuous unless cancelled on or before April 15).
- Section 3. With Buy-up Coverage only (No CAT).
- Section 4. For all eligible insurable trees within the county. **Not available for Stage I trees.**

Comprehensive Tree Value



Section 5. CTVE Definitions

Average revenue value – The value per tree for each applicable stage as determined in section 7(b) and (c) of the endorsement.

CTV amount of insured damage – The dollar amount determined by multiplying the CTV damage value times the coverage level.

CTVE Definitions

[CTV amount of protection](#) – The dollar amount (by unit) calculated by multiplying the number of insurable trees reported by you in each stage II – stage III block times the applicable maximum CTV reference price for the stage, adding these values, and then multiplying the result times the coverage level selected by you subject to any limit contained in the Special Provisions.

CTVE Definitions

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 – stage III block in all the stands of damaged trees (SDT) identified as a result of the most recent cause of loss times the applicable CTV reference price for the stage, and then adding these values.

The applicable 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.

CTVE Definitions

[CTV underreport factor \(URF\)](#) – A factor determined by us for the unit and used to adjust your CTV indemnity in Section 11(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

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

CTVE Definitions

CTV unit value – The amount determined by multiplying the number of actual insurable trees in each stage II - stage III 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 the maximum CTV reference price for the stage, adding these values, and then multiplying the result times the coverage level selected by you.

CTVE Definitions

Maximum CTV reference price – The price per tree by type, density, practice, and stage contained in 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 type, density, practice, and stage contained in the actuarial documents that is used in calculating the portion of the CTV damage value for fully (100-percent) damaged trees for this endorsement.

CTVE, Cont.

Section 6. Coverage level and price election elected under Section 3 of the Apple Tree Crop Provisions applies to the CTVE.

Section 7. Allows insureds to provide actual sales records to determine the applicable CTV reference prices. (See Exhibit 9 of the AT CISH for more details and examples).

Reference Revenue Value

The value per tree, type, density practice and stage contained in the actuarial documents for CTV that is used in calculating the actual CTV (minimum/maximum) reference prices for producers using their actual records of production and sales.

Average Revenue Value Calculation Example

SUMMARY OF REVENUE HISTORY					
CROP YEAR(s): 2021		INSURED'S NAME & ADDRESS: I. M. Insured PHONE: XXX-XXX-XXXX		AGENCY OR SERVICING OFFICE: Any Agency PHONE: XXX-XXX-XXXX AGENT CODE : XXXX	
CONTRACT NUMBER: XXXXX		OTHER PERSON:		INSURANCE PROVIDER: Any Company PHONE: XXX-XXX-XXXX COMPANY CODE: XX	
UNIT NUMBER-STAGE(S) AND TYPE OF TREES II and III - Group I		FSA FN:	LEGAL DESCRIPTION: SECTION TOWNSHIP RANGE		PRACTICE: Irrigated, Standard Density Conventional
INSURABLE or UNINSURABLE	NUMBER OF TREES:	COUNTY: Any County	STATE: Any State	PRE-ACCEPTANCE PERENNIAL CROP INSPECTION REPORT DATE:	
YEAR	NET ACRES NO. OF TREES	ROUNDS BOXES/CARTONS/ TONS PRODUCTION	GROSS SALES	AVERAGE GROSS SALES PER TREE	PRE-HARVEST APPRAISAL
1	2	3	4	5	6
2019	2000	7,596	97,060	48.53	
2018	2000	9,131	116,420	58.21	
2017	2000	12,814	163,379	81.69	
2016	2000	6,488	82,722	41.36	

Section 7.

-
- (a) Such records must:
- (1) Be verifiable;
 - (2) Be provided for all trees insured under your policy for the four most recent crop years (*commingled records for insured and uninsured trees will be used if such records cannot be separated*);
 - (3) Be submitted by the applicable sales closing date;
and
 - (4) Show the dates of sale, the buyers' name and address, pounds and dollar amount sold.

Comprehensive Tree Value Endorsement (CTVE)



The maximum and minimum CTV (actual) reference prices must be reported by stage block for each unit.

Section 8. Trees in Stage-I blocks are not insurable.

Section 9. Only *Stage II apple trees considered fully damaged* (100 percent) and requiring reset; and *Stage II and III apple trees considered destroyed* are eligible for an indemnity under this endorsement.

Section 10

For all trees considered **destroyed**, to receive the full indemnity under this endorsement:

- An equivalent number of trees must be planted within four (4) 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 or nuts 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 considered to be suitable for the production of the specific fruit or nut crop.

Section 10. Cont.

- DESTROYED TREES: 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.
- FULLY DAMAGED TREES: 100% of indemnity is paid within 30 days after claim approval.
- CTVE claim will only be payable if an indemnity is paid on the same unit under the Apple Tree (base) policy.
- If no indemnity is due under the Apple Tree (base) policy, then no indemnity will be due under this endorsement.

CTVE Example

- **Producer Insures:**

- 2,800 Eligible Apple Trees (800 Stage II; 2,000 Stage III)

- Standard Density
 - Conventional
 - Varietal Group B

- **Assumptions:**

- 75% coverage level (25% deductible)
 - 100% share
 - 0.5% CTVE premium rate
 - Underreport Factor = 1.000

Example, CTVE Amount of Protection and Premium



CTV Amount of Protection

Stage III Trees	Stage III Max CTV Ref Price	Stage II Trees	Stage II Max CTV Ref Price	Coverage Level
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$$\$282,900 = [(2,000 \times \$161) + (800 \times \$69)] \times 75\%$$

Total Premium

Amount of Protection	Share	Premium Rate
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$$\$1,415 = \$282,900 \times 100\% \times 0.5\%$$

Example, CTVE Indemnity Calculation

- Freeze damage to Apple Trees
 - 500 stage II and 500 stage III were *destroyed*
 - Use **Maximum** CTV Reference Price to calculate CTV Damage Value for **destroyed** trees;
Replant required.

Example, CTVE Indemnity Calculation



CTV Unit Deductible

Stage III Trees	Stage III Max CTV Ref Price	Stage II Trees	Stage II Max CTV Ref Price	Deductible %
2,000	\$161	800	\$69	25%

$$\$94,300 = [(2,000 \times \$161) + (800 \times \$69)] \times 25\%$$

CTV Damage Value for **destroyed** trees

Stage III Destroyed Trees	Stage III Max CTV Ref Price	Stage II Destroyed Trees	Stage II Max CTV Ref Price
500	\$161	500	\$69

$$\$115,000 = (500 \times \$161) + (500 \times \$69)$$

Example, CTVE Indemnity Calculation

Calculations (*continued*):

Total CTV Damage Value - CTV Unit Deductible

$$\begin{array}{r} \text{Total CTV} \\ \text{Damage Value} \end{array} \quad \begin{array}{r} \text{CTV Unit} \\ \text{Deductible} \end{array}$$
$$\$20,700 = \$115,000 - \$94,300$$

Total Indemnity

$$\begin{array}{r} \text{Total CTV} \\ \text{Damage Value} \end{array} \quad \begin{array}{r} \text{Underreport} \\ \text{Factor} \end{array} \quad \begin{array}{r} \text{Share} \end{array}$$
$$\mathbf{\$20,700} = \$20,700 \times 1.000 \times 100\%$$

Example, CTVE Indemnity Calculation

Calculations (*continued*):

The percent of the indemnity that is attributed to the destroyed trees is 100 percent

Indemnity due at time of claim = 50% indemnity for
destroyed trees = **\$10,350** = (\$20,700 x **50%**)

Indemnity due upon verification that you have met the requirements specified in section 9 of this endorsement
= **\$10,350** = (\$20,700 x **50%**)

Example, Indemnity Calculation

CTVE with OLO



Freeze damage to Apple Trees

700 stage II and 700 stage III were **destroyed**

CTV Damage Value for **destroyed** trees

Stage III Destroyed Trees	Stage III Max CTV Ref Price	Stage II Destroyed Trees	Stage II Max CTV Ref Price
700	\$161	700	\$69

$$\$161,000 = (700 \times \$161) + (700 \times \$69)$$

CTV Amount of Insured Damage (**destroyed** trees)

CTV Damage Value for Destroyed Trees	Coverage Level	Underreport Factor	Share
\$161,000	75%	1.000	100%

$$\$120,750 = \$161,000 \times 75\% \times 1.000 \times 100\%$$

Example, Indemnity Calculation

CTVE with OLO



Indemnity due at time of claim for destroyed trees =
\$60,375 = (\$120,750 x 50%)

Indemnity due upon verification that you have met
the requirements specified in section 9 of this
endorsement =

\$60,375 = (\$120,750 x 50%)

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