United States
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Federal Crop Insurance
Corporation

APPLE TREE CROP INSURANCE STANDARDS HANDBOOK

2022 and Succeeding Crop Years

FCIC-20550U (01-2020)
FCIC-20550U-1 (01-2021)

RISK MANAGEMENT AGENCY
KANSAS CITY, MO. 64133

TITLE: Apple Tree Crop Insurance Standards Handbook	**NUMBER: 20550U 20550U-1**
EFFECTIVE DATE: 2022 and Succeeding Crop Years	**ISSUE DATE: January 29, 2021**
SUBJECT: **Provides the procedures and instructions for administering the Apple Tree crop insurance program**	**OPI: Product Administration and Standards Division**
	APPROVED: **/S/ Richard Flournoy** **Deputy Administrator for Product Management**

REASON FOR ISSUANCE

Major changes: See changes or additions in text which have been highlighted. Three stars (***) identify information that has been removed.

1. Changed the acreage reporting date from July 15th to April 15th to coincide with other program dates and facilitate the submission of Pre-Acceptance Worksheet on a timely basis.

2. Clarified the tree spacing instructions for the Pre-Acceptance Worksheet contained in Exhibit 3.

3. Added Exhibit 12, Comparison of Symptoms of Fire Blight and Blossom Blast.

APPLE TREE CROP INSURANCE STANDARDS HANDBOOK

CONTROL CHART

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FILING INSTRUCTIONS

This handbook replaces the 2021 Apple Tree Crop Insurance Standards Handbook, FCIC-20550U (01-2020). This handbook is effective for the 2022 and succeeding crop years and is not retroactive to any 2021 crop year determinations.

APPLE TREE CROP INSURANCE STANDARDS HANDBOOK
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PART 1 GENERAL INFORMATION AND RESPONSIBILITIES

1 Purpose

The purpose of this handbook is to provide supplementary instructions for establishing apple tree crop insurance coverage in accordance with the Apple Tree CP (21-AT), Apple Tree LASH (FCIC-20550L), and the CIH (FCIC-18010).

In the course of delivering apple tree crop insurance, AIPs may develop forms based on their internal needs. The forms must be developed according to RMA's approved standards contained in this handbook or as specified in the DSSH (FCIC 24040) and provide all required information. Standards; examples contained in this handbook do not contain the required statements. Refer to the DSSH (FCIC 24040) to determine the applicable statements to be included on each form. The Collection of Information and Data (Privacy Act) Statement and the Nondiscrimination Statement must be included on any form the insured signs or must be provided to the insured on a separate form, for each form that is signed by the insured. A copy must be maintained by the AIP. The Certification Statement must be included on any form that the insured signs that collects information from the producer.

2 Background Information

RMA is implementing the Apple Tree (AT) program for all insurable apple trees beginning with the 2021 crop year. The program is patterned after other tree-based dollar crop insurance programs and provides insurance coverage for trees that are damaged by insured causes of loss occurring during the insurance period.

The AT insurance program is a Tree Based Dollar Amount of Insurance Crop program (Plan Code 40). The terminology and instructions contained in the CIH that apply to the responsibilities of the AIP and the insured apply to the AT program.

3 Availability

The AT program is available in counties where the FCIC AT program is offered.

4 Eligibility

A. Apple Tree Program

The AT program is available to all persons with a share in an apple tree orchard in the counties listed in the AD for the purpose of producing a crop intended to be sold for human consumption in accordance with the BP, CP, and SP.

B. Ineligible Persons

Any person with a delinquent debt to RMA or an AIP or who is otherwise ineligible under the BP may not obtain AT insurance coverage.

5 Important Dates

A. Contract Change Date

January 31 preceding the cancellation date.

5 Important Dates (Continued)

B. Sales Closing Date

April 15.

C. Cancellation and Termination Dates

April 15 before the beginning of the crop year.

D. Premium Billing Date

March 1 of the crop year.

E. Acreage Reporting Date

*** For new and carryover insureds, April 15.

F. Beginning of the Insurance Period Dates

(1) For new policies: On July 1 following the SCD date unless the AIP notifies the insured that all or a part of the insured's trees are not insurable.

(2) For carryover policies: July 1 of the crop year.

G. Calendar Date for the End of the Insurance Period

June 30 of the crop year.

6 Coverage Levels, Price Elections, and Policy Changes

A. Coverage Levels

The insured may select a different coverage level for each insured apple tree type, as specified in section 3 of the CP (e.g., the insured may elect the 75 percent coverage level on one type and the 65 percent coverage level on a different 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.

B. Price Elections (Tree Reference Price)

The insured may select different prices elections by type. Additionally, the insured may elect a different percentage of the maximum price election available for each type. For example, if the insured chooses 100 percent of the maximum price election for one type, the insured may choose 75 percent of the maximum price election for another type.

C. Policy Changes

Changes to the insurance coverage that would become effective for the current crop year are limited as follows:

(1) For new policies, changes may not be made after the SCD.

(2) In subsequent years, for carryover policies, the insured may elect, prior to the SCD, a higher coverage level, higher price percentage, or optional coverage on the applicable form.

(3) The insured may:

(a) by the SCD, elect:

(i) a higher coverage level;

(ii) a higher price percentage;

(iii) to add optional coverage (Comprehensive Tree Value Endorsement, Fire Blight Endorsement in states where the endorsement is an optional election, or Occurrence Loss Option).

(b) by the ARD:

(i) increase the insured share; or

(ii) report additional insurable trees such that the amount of protection increases more than ten percent. The additional trees must be inspected and accepted before insurance will attach.

(4) If insured damage is evident at the time the election is made under Para. 6C(2) or if damage occurs after the SCD but before the date insurance coverage attaches for the crop year under Para. 6C(3)(a) or (b), any election or change made under Para. 6C(2) or (3) will not be effective for the crop year for which the election or reported change was made.

7 Additional Responsibilities

A. Agent Responsibilities

In addition to the responsibilities discussed in the CIH, the agent will assist the insured in completing the annual acreage report and advise insureds of their responsibility to comply with all of the reporting requirements of the policy.

(1) The agent will assist the insured to ensure that the stage-blocks reported by the insured are established in accordance with the definitions of block and stage found in the CP and the stage table in Para. 10D of this handbook.

(2) The agent will 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.

B. Insured Responsibilities

In addition to the responsibilities discussed in the CIH, the insured must accurately report the number of trees in each unit, by stage-block, as well as the applicable planting dates on the Apple Tree Producer Pre-Acceptance Worksheet, Grove Identification Map, and the acreage report. If the insured is unable to correctly report this information, the agent should be requested to provide assistance.

PART 2 APPLE TREE PROVISIONS AND PROGRAM DETAILS

8 Insured Crop

A. Insured Commodity

The insured commodity is listed in the SP.

B. Insurability

In accordance with section 8 of the BP, the insured crop will be all apple trees in the county for which a premium rate is quoted in the AD:

(1) that are grown in the county listed on the insured's 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 have the potential to produce a yield typical of a healthy 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) that are insured under the Fire Blight Endorsement as specified in the SP. (See Para. 15D for instruction regarding administration of the Endorsement.)

C. Exclusions

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 (see the definition of 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.

9 Causes of Loss

A. Crop Provisions – Insured Causes

The CP provide crop insurance coverage only against the following causes of loss that occur within the insurance period:

(1) freeze;

(2) wind (leaning or toppled tree damage);

(3) hail;

(4) volcanic eruption (volcanic ash);

(5) fire, unless weeds and other forms of undergrowth have not been controlled or pruning debris removed from the orchard;

(6) insects, diseases, and other pathogens, as specifically provided by the SP or by a separate endorsement; and

(7) failure of the irrigation water supply caused by an unavoidable, naturally occurring event that occurs during the insurance period.

B. Crop Provisions – 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.

10 Establishing the Amount of Protection for the Unit

A. Amount of Protection (unit)

The dollar amount of protection for the unit is calculated by multiplying the number of insurable trees reported by the insured in each stage-block by the applicable tree reference price for each stage-block by the price percentage selected by the insured for the type, totaling these values, and then multiplying this result by the insured's coverage level for the type.

(1) The applicable reference price is the Tree Reference Price shown in the AD (referred to in the CP as the insured's [your] tree reference price).

(2) Under the CTVE, the applicable reference price is the Maximum CTV Reference Price for the crop shown in the AD. (The insured may elect to provide actual sales records to determine CTV Reference Prices. See Exhibit 9.)

B. Certification

Applicants for insurance certify the numbers and ages of trees to be insured by completing and submitting an Apple Tree Orchard Producer Pre-Acceptance Worksheet (shown in Exhibit 3 with instructions for completion) by the acreage reporting date.

(1) The applicant identifies the blocks of trees in each unit and provides information about the number of trees and planting dates used to designate the stage-blocks that comprise each unit.

(2) The applicant also provides a Grove Identification Map (shown in Exhibit 4 with instructions for completion) that shows locations of the stage-blocks identified in the worksheet.

(3) Insureds are not required to submit new worksheets or maps in subsequent years of coverage unless changes occur which alter the numbers of trees and/or stage-block designation, trees are damaged (see section 8(b)(4) of the CP) or as required by the CIH. The insured may use the original worksheet to certify that no changes have occurred. [See Exhibit 3, Remarks instructions and sample worksheet.]

C. 75/25 Rule for Determining Tree Stages

(1) Insureds must report trees by block on the Apple Tree Orchard Producer Pre-Acceptance Worksheet (shown in Exhibit 3).

(a) For blocks in which 75% or more of the trees are the same stage, the insured may report the block as one stage-block.

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:

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

The insured elects a 75% coverage level and 100% price percentage. The stage III tree reference price is $51, and the maximum CTV reference price is $161.

Amount of protection $_{Tree}$ = [(500 x ($51 x 100%)] × 75% = $19,125

Amount of protection $_{CTVE}$ = [(500 x ($161 x 100%)] × 75% = $60,375

Example 2: The 50 stage I trees in the preceding example could be reported as a separate block if there were a distinct change in planting pattern in one area of the orchard (e.g., end rows at the edge of an orchard).

The insured may report the blocks as follows:

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

The stage I tree reference price is $25.

Amount of protection $_{Tree}$ = [(450 x ($51 x 100%)] + [(50 x ($25 x 100%)] × 75% = $18,150

Amount of protection $_{CTVE}$ = [(450 x ($161 x 100%)] × 75% = $54,338

The CTV Amount of Protection includes only the stage-III block. Stage-I blocks are not eligible for the CTVE.

(b) For blocks in which less than 75% of the trees are the same stage, the insured must separate the blocks into stage-blocks and report the number of trees in each stage-block.

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

The instructions contained in the previous subparagraph C(1)(b) would be applied to this example for reporting purposes.

The insured elects a 75% coverage level and 100% price percentage. The tree reference prices are $51 for stage III, $29 for stage II, and $25 for stage I;

The maximum CTV reference prices are $161 for stage III; $69 for stage II.

Amount of protection $_{Tree}$ = [(100 x ($25 x 100%)] + [(100 x ($29 x 100%)] + [(300 x ($51 x 100%)] × 75% = $15,525

Amount of protection $_{CTVE}$ = [(300 x ($161 x 100%)] + [(100 × ($69 x 100%)] × 75% = $41,400

(c) If the trees described in (b) were inter-planted, the three stage-blocks would be shown in the same location on the Grove Identification Map.

D. Tree Stages

Tree stages will be based on the number of crop years since the trees were set out as follows:

Event Crop Year	Stage as of July 1 Following Each Complete 12-Month Period Following Event Crop Year Standard Density Orchard		
	Crop year 2018 – 2019	Crop year 2020 – 2023	Crop year 2024+
Set Out Calendar Year – Spring 2017	Stage I	Stage II	Stage III

Event Crop Year	Stage as of July 1 Following Each Complete 12-Month Period Following Event Crop Year High Density Orchard		
	Crop year 2018	Crop year 2019 – 2020	Crop year 2021+
Set Out Calendar Year – Spring 2017	Stage I	Stage II	Stage III

11 Acceptable Records

A. Acceptable Records

Acceptable records may be requested at the time of loss to substantiate the tree counts and stages reported by applicants/insureds. Insureds are not required to submit copies of their records to the AIP 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.

B. Record Types

The following types of records are acceptable, if the records indicate the location, the number of trees, and planting dates:

(1) planting records (orchard management records); and

(2) AIP recorded evidence, which includes pre-acceptance inspection reports, acreage reports, and any other documentation of tree ages that was used to establish insurance coverage for the trees.

C. Apple Tree Orchard Pre-Acceptance Worksheet and Grove Identification Map

(1) Insureds should be encouraged to obtain and use acceptable records to prepare an Apple Tree Orchard Pre-Acceptance Worksheet and Grove Identification Map. (See Exhibits 3 and 4 for completion instructions and sample worksheet and map.)

(2) The PAW and Grove Identification Map are submitted with the application. For subsequent crop years, the PAW is completed annually (self-certification allowed following year of application) and submitted by the ARD. The Grove Identification Map is also used in conjunction with the PAIR (see Exhibit 5).

(3) The applicant/insured certifies:

(a) by stage-block for each unit, the numbers and age of trees to be insured and the applicable stage, by completing a PAW (see Exhibit 7 for instructions on determining tree age); and

(b) other information contained on the PAW.

D. Tree Numbers and Stage Determinations

(1) A visual inspection is required to establish the unit value for claim settlement and will be completed by a loss adjustment contractor or company employee who has been trained in loss adjustment procedures to determine the actual (existing) tree numbers and stages.

(a) If an inspection reveals no discrepancy between the reported and actual numbers and stages of trees, the loss adjuster (or trained company employee) should sign and date the PAW that was submitted by the insured to verify that the information was found to be accurate.

(b) If an inspection reveals a discrepancy between the reported and actual numbers and stages of trees, the loss adjuster can:

i. request to examine the records used by the insured to complete the PAW and Grove Identification Map;

ii. establish the numbers of trees in each stage-block using the setting distances shown in Exhibit 8; or

iii. conduct a tree count.

(2) AIPs may use a PAW and the instructions provided in Exhibit 3 to establish the stage-blocks of trees in each unit at the time of loss, if the information provided by the policyholder was not accurate. Both the insured and the AIP representative should sign and date the revised PAW.

12 Unit Division

A. Whole Farm Units

Whole farm units are not applicable.

B. Basic Unit

A basic unit as defined in the BP will apply.

C. Optional Units

In lieu of section 34(b), (c)(1), and (c)(2) of the BP, 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 on the SP (see Exhibit 11); or

(3) grown under an organic farming practice (see section 34(c)(3) of the BP).

D. Enterprise Units

In lieu of section 34(a)(2), (4)(i), and (4)(ii) of the BP, for an enterprise unit:

(1) To qualify, an enterprise unit must contain all of the insurable acreage of the same insured crop in:

(a) two or more optional units;

(b) two or more sections, section equivalents, or FSA farm numbers where sections, section equivalents, or FSA farm numbers are applicable for unit division purposes;

(c) any combination of two or more parcels under Para. D(1)(a) or (b); or

(d) one optional unit, section, section equivalent, or FSA farm number that contains at least 660 planted acres of the insured crop; and

(2) At least two of the optional units, sections, section equivalents, or FSA farm numbers, respectively, under Para. D(1)(a) – (c) each must contain at least the lesser of 20 acres or 20 percent of the insured crop acreage in the enterprise unit. Separate optional units, sections, section equivalents, or FSA farm numbers, respectively, may be aggregated to meet the 20-acre or 20-percent acreage requirement.

(3) Sections 34(a)(4)(iii), (iv), (v), and (viii) of the BP are not applicable.

13 Excluded Coverage

The following coverages do not apply to the AT insurance program:

(1) Prevented Planting
(2) Late Planting
(3) Replanting

14 Service Forms

The following forms are required for the AT Program:

(1) Application
(2) Policy Change
(3) Apple Tree Orchard Producer Pre-Acceptance Worksheet
(4) Grove Identification Map
(5) Apple Tree Orchard PAIR
(6) Acreage Report

PART 3 ENDORSEMENTS AND OPTIONS

15 Endorsements and Options

The AT Program has an endorsement and options that add supplemental coverage, exclude coverage, or otherwise modify the coverage.

A. Occurrence Loss Option (OLO)

An insured with an AT Policy in effect may elect to obtain additional coverage on the insured trees through the use of this option (where premium rates for the option are provided on the AD). The option applies to all insurable trees of the insured crop in the county. The option is continuous and must be elected by the SCD for the crop year. The option may be cancelled in accordance with the cancellation provisions of the policy.

(1) The insured may elect the OLO if he/she has not elected coverage under the CAT Endorsement.

(2) An indemnity will be due under the OLO only if the amount of insured damage within all SDTs identified as a result of the most recent cause of loss is at least five percent (5%) (10% if the Fire Blight Endorsement is elected) of the unit value (unless otherwise specified in the SP).

(3) The amount of the indemnity will be determined by:

(a) multiplying the total number of trees in each stage-block (in all SDTs identified as a result of the most recent cause of loss) by the insured's tree reference price (the applicable AD tree reference price by the insured's price percentage) and applicable percent damage for each stage-block and then totaling these values to determine the damage value;

(b) multiplying the damage value by the coverage level selected by the insured for the type to determine the amount of insured damage;

(c) multiplying the amount of insured damage by the URF; and

(d) multiplying the result of (3)(c) by the insured share.

If A(3)(b) is greater than A(2), the amount in A(3)(d) is the amount of indemnity due.

(4) The total amount of indemnities payable on a unit during the crop year is limited to the lesser of the amount of protection for that unit or the unit value times the insured's share.

B. Comprehensive Tree Value Endorsement

The CTVE provides supplemental coverage for apple trees in addition to the coverage provided by the CP.

(1) The insured may elect the CTVE if he/she has not elected coverage under the CAT Endorsement. The endorsement is continuous and must be elected by the SCD for the crop year. The endorsement may be cancelled in accordance with the cancellation provisions of the policy.

(2) A CTVE indemnity will not be paid unless an indemnity is paid on the unit under the CP.

(3) The CTV Amount of Protection (unit) will be determined by multiplying the number of insurable trees reported by the insured in each stage-block by the insured's maximum CTV reference price (the applicable AD CTV maximum reference price time the insured's price percentage) for each stage-block, adding these values, and then multiplying by the coverage level.

(4) The CTV Unit Value will be determined by multiplying the number of insurable trees in each stage-block in the unit, as determined by the AIP, on the day before the loss (but not reduced for any insured damage that occurred during the crop year) by the insured's maximum CTV reference price for each stage-block, adding these values, and then multiplying by the coverage level.

(5) The reference price offered under this endorsement is applicable to CTVE coverage and indemnity determinations and are in addition to coverage and indemnity determinations under the CP.

The CTV references prices may be based on actual records of sales of apples (converted to a tree basis). See the CTVE and Exhibit 9 for applicable terms and requirements, example calculations, and applicable form for collecting sales records and determining the average market value.

(6) Only those trees in stage-blocks designated as stage II and stage III and considered fully damaged or destroyed are eligible for an indemnity under this endorsement.

(7) If the insured elects both the OLO and the CTVE, the OLO will apply to the CTVE.

(8) The coverage level and price percentage elected by the insured for the AT Policy will apply to the endorsement.

C. High-Risk Land Exclusion Option

This option is available for apple trees on any land identified in the AD as high risk and allows the insured to exclude land identified as high risk in accordance with section 3(b)(2) of the BP.

D. Apple Tree Fire Blight Endorsement

This option is available for apple trees and allows the insured to add coverage for damage caused by fire blight under the following conditions:

(1) The insured must have the BP and AT Crop Provisions in force to elect to insure against fire blight under this Endorsement.

(2) Availability of Fire Blight Endorsement

The Endorsement is:

(a) optional in Idaho, Oregon, and Washington - All program counties.

(b) required in Michigan, New York, and Pennsylvania for additional coverage policies - All program counties.

(See SP for optional and mandatory coverage statements.)

The Fire Blight Endorsement is not available for ATs under CAT or the organic practice (all coverage levels) on either an optional or required basis. Subject to an acceptable PAIR inspection, ATs are insured for all other insured causes of loss.

(3) In those states where the Endorsement is optional, you must elect this Endorsement in writing on or before the applicable SCD for apple trees.

(4) This Endorsement, if in effect (i.e., optional or mandatory), will apply to all eligible acreage of all types of apple trees under the CP where the AD provides fire blight coverage. The Endorsement applies on a unit basis. PAIR inspections will be used to determine which units meet the requirements of the Endorsement. Qualifying units and non-qualifying units (units with fire blight) are reported separately on the acreage report. The applicable fire blight code contained in the rate table of the AD will be reported to identify qualifying units. Any trees within a qualifying unit with pre-existing damage from other causes would be uninsurable and would be reported separately on the acreage report from insurable undamaged trees.

For a non-qualifying unit, any trees in a unit determined to be uninsurable due to any pre-existing damage including fire blight infection based on a 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 under the CP (see section 8(b)(2), (4), and (5) of the CP).

Any trees in a non-qualifying unit that are not damaged would be insurable for all covered causes of loss (i.e., fire blight would not be a covered cause of loss on a non-qualifying unit) and would be reported as insured trees for the unit on the acreage report.

If any of the conditions in section 3(b)(1) – (3) of the Endorsement are met, the unit would qualify for the Endorsement and all eligible undamaged trees in the qualifying unit would be insurable for all causes of loss including fire blight (trees with other pre-existing damage would remain uninsurable).

(5) The coverage level and price percentage elected by the insured for the AT Policy will apply to the endorsement.

(6) The insured may not elect this Endorsement if your apple tree crop is:

(a) Insured under the Catastrophic Risk Protection Endorsement; or

(b) Grown under organic production practices (i.e., all insurable trees).

(7) The Endorsement, if an optional election, will continue in effect until cancelled by either the insured or the AIP by the cancellation date. If the Endorsement is mandatory, it will continue in effect until either the insured or the AIP cancels the AT insurance policy by the cancellation date. If at any time the insured's AT insurance policy is cancelled or terminated, the Endorsement is automatically cancelled or terminated as of the same date.

Acronyms

The following table contains RMA-approved acronyms used in this handbook.

Approved Acronym/Abbreviation	Term
AD	Actuarial Documents
ARD	Acreage Reporting Date
AIP	Approved Insurance Provider
AT	Apple Tree (s)
BP	Basic Provisions
CAT	Catastrophic Risk Protection Endorsement
CIH	FCIC- 18010 Crop Insurance Handbook
CP	Crop Provisions
CTVE	Comprehensive Tree Value Endorsement
DSSH	Document and Supplemental Standards Handbook
FCIC	USDA Federal Crop Insurance Corporation
FSA	Farm Service Agency
LAM	FCIC- 25010 Loss Adjustment Manual
LASH	Loss Adjustment Standards Handbook
PAIR	Pre-acceptance Inspection Report
PAW	Producer’s Pre-acceptance Worksheet
RMA	Risk Management Agency
SCD	Sales Closing Date
SP	Special Provisions
SDT	Stand of Damaged Trees
URF	Underreport Factor

Definitions

Adjustment factor – means 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) – means 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.

Amount of insured damage – means the dollar amount determined by multiplying the damage value by the coverage level.

Amount of protection (unit) – means the dollar amount for the unit calculated by multiplying the number of insurable trees reported by the insured in each stage-block by the insured's tree reference price for each stage-block, totaling these values, and then multiplying this result by the coverage level selected by the insured subject to any limitations contained in the Special Provisions.

Block – means 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 – means the location on the tree trunk where a bud from one tree variety is grafted onto the rootstock of another variety.

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

CTV amount of protection – means the dollar amount (by unit) calculated by multiplying the number of insurable trees reported by the insured in each stage II and III block by the insured's maximum CTV reference price for each stage-block, adding these values, and then multiplying the result by the coverage level selected by the insured subject to any limitations contained in the Special Provisions.

CTV damage value – means 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 III block in all the stands of damaged trees identified as a result of the most recent cause of loss by the insured's 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) – means a factor determined by AIP and used to adjust the insured's CTV indemnity in section 11(b)(2) when the insured has 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.

CTV unit deductible – means the dollar amount determined by multiplying the actual number of insurable trees in each stage II and III block in the unit on the day before the loss (but not reduced for any insured damage that occurred during the crop year) by the insured's 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).

Definitions (Continued)

CTV unit value – means the amount determined by multiplying the number of actual insurable trees in each stage II and III block in the unit, as determined by the AIP, on the day before the loss (but not reduced for any insured damage that occurred during the crop year) by the insured's maximum CTV reference price for each stage-block, adding these values, and then multiplying the result by the coverage level selected by the insured.

Damage value – means 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) – means 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.

Density practice – Each density practice designated in the Special Provisions.

Destroyed tree – means

(a) 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
    (5) If the Fire Blight Endorsement is in effect:
        (i) Is 1-6 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.
(c) See section 13(d) and (i) of these Crop Provisions for determining the percent of damage for destroyed trees.

Fully damaged – means

(a) An insurable tree requiring reset
(b) A fully damaged tree will be considered 100 percent damaged but is not destroyed. (See section 13(d) and (i) of these Crop Provisions for determining the percent of damage for fully damaged trees.)

High Density – means orchards containing the number of trees per acre specified in the Special Provisions.

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

Maximum CTV reference price – means 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 the Endorsement.

Definitions (Continued)

Minimum CTV reference price – means 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 fully damaged trees for the Endorsement. The minimum CTV reference price applies only to stage II trees.

Occurrence loss option – means an option that may be elected by the insured that eliminates the unit deductible in accordance with section 15 of these Crop Provisions.

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

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

Reset – means 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 –means transplanting a tree into the orchard.

Share – means 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 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 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.

Stage – means 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

Stage-block – means a block in which at least 75 percent of the trees are the same stage, at the time insurance attaches.

Standard Density – means orchards containing the number of trees per acre specified in the Special Provisions.

Stand of damaged trees – means the area or areas within a unit where damage due to the same insurable cause of loss occurs, as established by the insurance provider 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.

Definitions (Continued)

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

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

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

Undamaged – means a tree that does not require removal or reset.

Underreport factor (URF) **–** means a factor determined by the insurance provider and used to adjust the insured's indemnity in section 13(a) when the insured has 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 – means 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) by the insured's tree reference price for each stage-block, totaling these values, and multiplying this result by the deductible (1.0 minus the coverage level).

Unit value **–** means, 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 the insurance provider, on the day before the loss (but not reduced for any insured damage that occurred during the crop year) by the insured's tree reference price for each stage-block, totaling these values, and then multiplying this result by the coverage level selected by the insured.

Apple Tree Orchard Producer Pre-Acceptance Worksheet

The PAW (AT) is completed annually (self-certification allowed following year of application) and submitted by the acreage reporting date. The applicant/insured also provides a Grove Identification Map (shown in Exhibit 4 with completion instructions) that shows locations of the stage-blocks identified in the PAW (AT).

Once the initial certification (worksheet and Grove Identification Map) has been provided, insureds who continue insurance coverage in subsequent crop years will be allowed to self-certify in the remarks section of the original pre-acceptance worksheet that no change has occurred. (See the Remarks section instructions.)

If any changes have occurred since the original certification that would alter the stage-block designations or the numbers of trees in each stage-block (e.g., periodic stage changes, tree damage resulting in resetting, removal/thinning of trees, etc.), an amended or revised worksheet and aerial photo(s), maps (e.g., GPS), or Grove Identification Map must be completed for any blocks of trees affected by the change. (See the Remarks section instructions.) A new PAIR (AT) may be required.

The PAW triggers the need for a PAIR when the applicant/insured answers:

(1) Yes to whether "… damage (e.g., wind (e.g., tornado/hurricane), freeze, drought, etc.) occurred to trees that will reduce the insured crop's coverage from previous crop years?"

(2) Yes to whether "…practices or production methods (e.g., removal or thinning; resetting, dehorning, grafting; or hedging or pruning) have been performed that will reduce the insured coverage from previous crop years?"

Applicable changes must be reported on the acreage report.

Instructions for Completion

Items to be completed by the approved insurance provider are denoted [AIP].

ELEMENT	REQUIRED INFORMATION
Name of Applicant/Insured	Enter the name of the applicant or insured as it appears on the application for insurance.
Crop Year	Enter the crop year for which the worksheet is being completed.
County	Enter the name of the county in which the trees are located.
Agent [AIP]	Enter the name, address, and phone number of the agent who services or will service this contract, as applicable.
Contract Number [AIP]	Enter the contract number from the most recent Policy Confirmation. In the case of a new applicant, enter only the 2-digit state and 3-digit county code, e.g., XX-XXX.
Address of Applicant/Insured	Enter the mailing address of the applicant or insured as it appears on the application for insurance.
Phone Number of Applicant/Insured	Enter the area code and telephone number at which the applicant or insured can be reached during normal business hours.

Apple Tree Orchard Producer Pre-Acceptance Worksheet (Continued)

INDIVIDUAL ORCHARD DATA:

Item #	REQUIRED INFORMATION
(1) Unit Number [AIP]	Begin unit numbering with 0001-0000BU or 0001-0001OU. Basic, optional, and enterprise units are allowed as defined in the CP.
(2) Block Number	By line, enter the block number as identified on the grove identification map. A block is a stand of trees of the same type on acreage in the unit sharing a common boundary with no discernible change in planting pattern (a homogenous planting pattern) and may or may not consist of different tree stages (age classes). If there is a change in planting pattern that distinguishes areas of different tree ages within the stand (orchard), the insured can report the areas as separate blocks.
(3) Section	Enter the section number for the orchard location. (a) Complete a separate worksheet for each section. Note all section numbers in the "Remarks" section. (b) In the absence of sections, townships, and ranges, use the applicable legal description for the area to complete items (3) through (5). Enter the Farm/Tract/Field Number if available.
(4) Township (Twp.)	Enter the legal description (township number) for the orchard location if available [see item (3)(b)].
(5) Range	Enter the legal description (range number) for the orchard location if available [see item (3)(b)].
(6) Crop & Type	Enter the applicable commodity name and type as specified in the Special Provisions.
(7) Acres in Block	Enter the acres occupied by the block, rounded to the nearest tenth.
(8) Tree Spacing	Spacing in whole feet (e.g., 15 x 15). If spacing varies, enter "varying" and explain in "Remarks."
(9) Tree Count	Enter the total number of trees in the block. Enter an estimate (identify as "Est") if accurate determination is impractical.
(10) Tree Stage	The stages (I - III) are shown on separate lines of the worksheet.
(11) Month & Year Set	Enter the month and year of set out for the trees in each stage shown on separate lines. If the trees of a stage were set out in different years, enter the date when most of the trees were set out.
(12) Tree Age	Enter the tree age in years (that corresponds to the date in item 11) for the trees in each stage shown on separate lines.
(13) Number of Trees	Enter the number of trees in each stage on separate lines.
(14) Percent of Trees	For each line, enter the result of dividing the number of trees (item 13) by the tree count for the block (item 9), and multiplying by 100. Round the result to whole numbers; for example, report 65.48% as 65% and 65.84% as 66%.

Item #	REQUIRED INFORMATION
(15) Stage-Block Number	Determine if the block should be reported as one or more stage blocks. If one of the percentages reported in item 14 is at least 75%, report the block as one stage-block. If none of the percentages reported in item 14 is at least 75%, report each block as a separate stage-block. Denote the stage-block on each line for which there are entries in item 14, by the block number and the tree stage. For example, if the block is No. 1 and 80% of the trees in the block are stage III, record the stage-block number as 1-III on each line for which there are entries in item 14; if the block is No. 2 and 50% of the trees in the block are stage III and 50% are stage I, record the stage-block numbers as 2-III and 2-I, respectively.
REMARKS	Enter notes pertinent to the orchard certification, such as the source of information used to complete the worksheet, method of determining tree numbers, and description of the orchard. List each block: (a) Identify it as a non-trellis block or a trellis block. (b) If a trellis block, indicate the type of trellis and year installed. (c) Indicate if trees are visibly infected with fire blight and the percent of the unit infected. For subsequent crop years, the insured will: (a) Enter "No change for XXXX Crop Year," initial and date if no changes have occurred in the orchard. (b) If there are any changes, note in the remarks section the nature of the changes (e.g., tree damage, change in the number of trees, stage changes, etc.) that have occurred since the original certification and sign and date the amended or revised worksheet and grove identification map. (c) Report applicable changes on the current year's acreage report.
Signature of Insured/Applicant	Sign and date the worksheet. See Remarks section of the sample worksheet for subsequent year instructions.
Enter the page number of this form in the first blank and the total number of pages of this form for this contract in the second blank. For example: Page 2 of 3 Pages.	
Signature of Insurance Provider Representative	Sign and date the worksheet after conducting an inspection to verify the information provided on the worksheet.

Apple Tree Orchard Producer Pre-Acceptance Worksheet (Continued)

APPLE TREE ORCHARD PRODUCER PRE-ACCEPTANCE WORKSHEET
FOR ILLUSTRATION ONLY

NAME OF INSURED/APPLICANT	CROP YEAR	COUNTY	AGENT	CONTRACT NUMBER
Joe Farmer	YYYY	Walla Walla	Frank Agent	48-XXX

ADDRESS OF INSURED/APPLICANT	PHONE NUMBER OF INSURED/APPLICANT	
RR One Walla Walla, Washington	XXX-XXX-XXXX	5678 Apple Tree Drive Walla Walla, Washington XXX-XXX-XXXX

INDIVIDUAL ORCHARD DATA:

UNIT NO. (1)	BLOCK NO. (2)	SECTION (3)	TWP (4)	RANGE (5)	CROP & TYPE (6)	ACRES IN BLOCK (7)	TREE SPACING (8)	TREE COUNT (9)	TREE STAGE (10)	MONTH & YEAR SET (11)	TREE AGE (12)	NUMBER OF TREES (13)	PERCENT OF TREES (14)	STAGE-BLOCK NUMBER (15)
0001 0001OU	1	Sec.7	7N	37W	Apple Trees Group A	20.0	10x20	4356	I					
									II	April 2016	3	479	11%	1-II
									III	April 2013	6	3,877	89%	1-II
0001 0002OU	2	Sec.7	7N	37W	Apple Trees Group B	20.0	10x20	4356	I					
									II					
									III	April 2013	6	4,356	100%	2-II

Apple Tree Orchard Producer Pre-Acceptance Worksheet (Continued)

APPLE TREE ORCHARD PRODUCER PRE-ACCEPTANCE WORKSHEET, CONTINUED		
REMARKS Block 1 – Non-Trellis; No visible fire blight infection Block 2 – Non -Trellis; No visible fire blight infection (For subsequent crop years if no changes occur from the prior crop year, the insured will enter the following statement on a copy of the insured's original Pre-acceptance Worksheet, initial and date) No change for _____ crop year. JF, MM/DD/YYYY		
I certify that the information provided above is true and correct to the best of my knowledge.		
SIGNATURE OF INSURED/APPLICANT Joe Farmer	DATE DD/MM/YYYY	PAGE __1__ OF _1___
SIGNATURE OF INSURANCE PROVIDER REPRESENTATIVE I. M. Inspector	DATE OF INSPECTION DD/MM/YYYY	

The applicable Privacy Act statement must appear on the form (or back of the form). See the Document and Supplemental Standards Handbook (FCIC 24040) for the current statement.

Grove Identification Map & Instructions for Completion

Item:

(1) Enter the name of the insured or applicant.

(2) Enter the county where insurance attaches.

(3) Enter the policy number.

(4) Enter the crop and type, if applicable.

(5) Enter the unit number.

(6) Enter the section, township, and range (or applicable legal description in place of section, township, and range) in which the insured crop is located.

(7) Maps: Identify the acreage to be mapped using a unit designation.

   (a) Identify highways and other significant landmarks that can be used to help identify orchard locations.

   (b) Outline apple block (orchard) locations. Draw blocks in actual shapes and as close to scale as possible. Indicate the stages of planted trees, if identifiable. Indicate any acreage of trees that has been excluded from coverage by labeling as "excluded."

   (c) Outline land ownership boundaries in red for each section involved. Indicate land ownership across section lines with tie bars.

GROVE IDENTIFICATION MAP (FOR ILLUSTRATION ONLY)

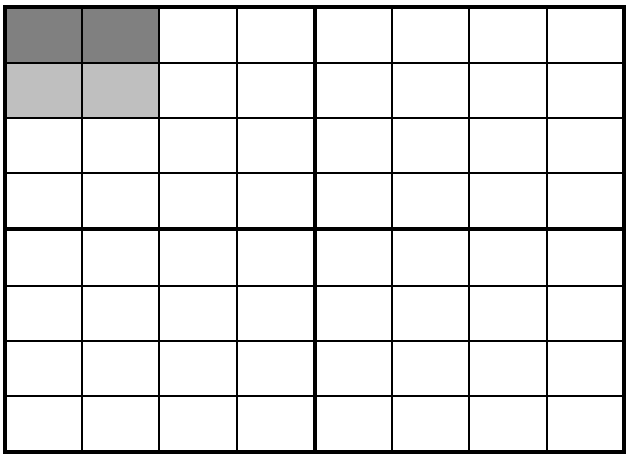
Page _1__ of __1_

Joe Farmer	Walla Walla	XXXXXXX
(Name of Insured or Applicant)	(County)	(Policy Number)

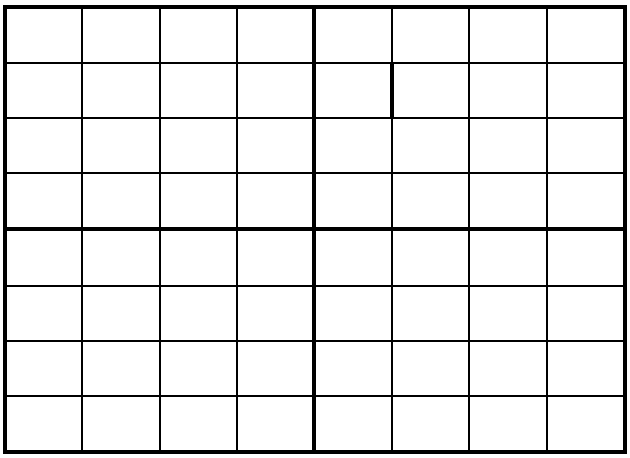
Crop: Apple Trees – Type – Varietal. Group A. Unit No.: 00010001OU

Legal Description: Township: 7N Range: 37W

Section: 7



Section: _____



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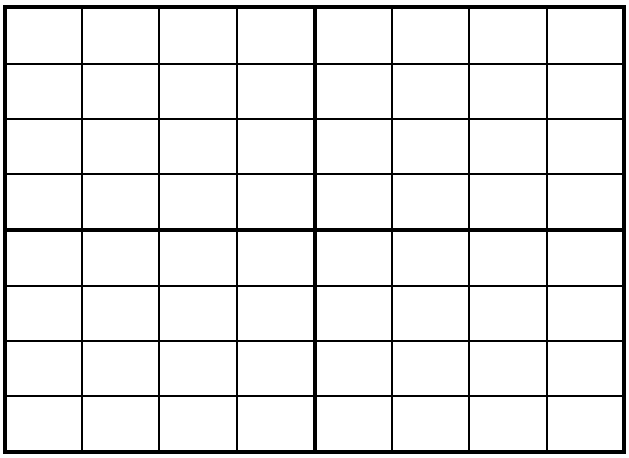

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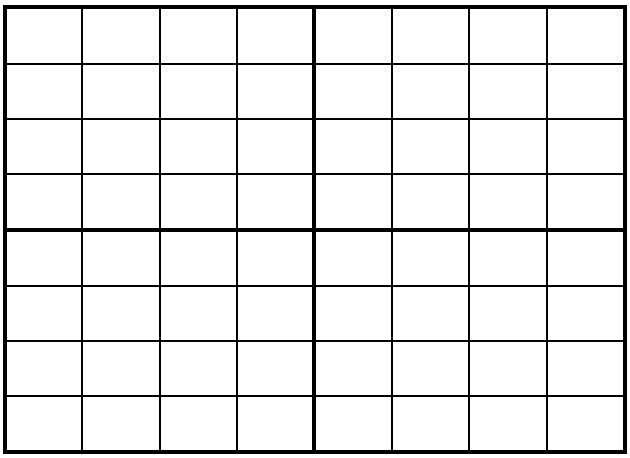
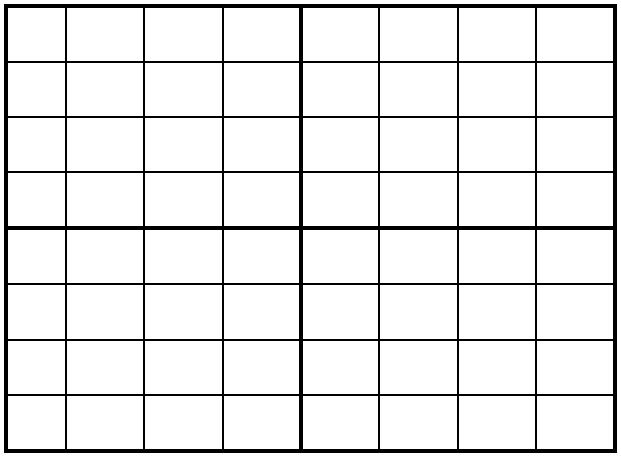


Comments:

GROVE IDENTIFICATION MAP – Continuation Sheet (for illustration only)

Section: _____



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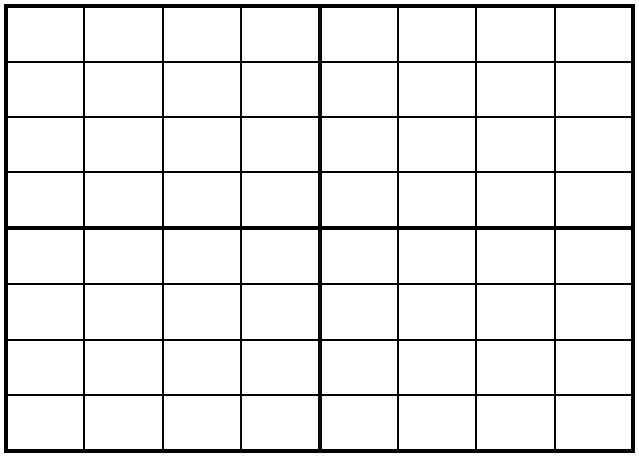

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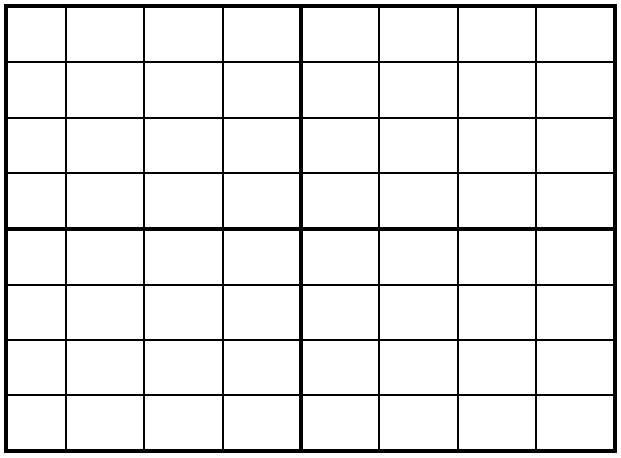

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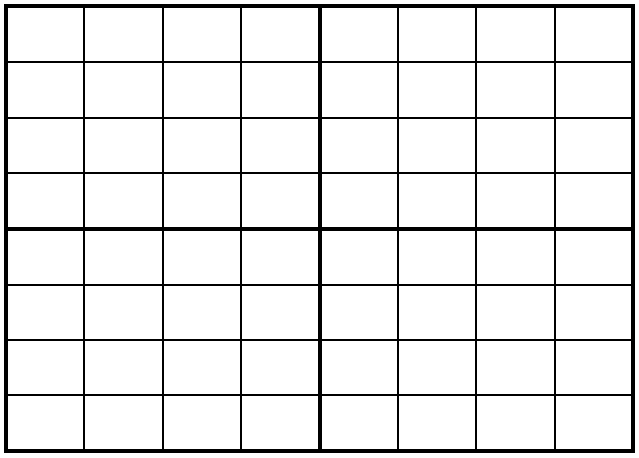

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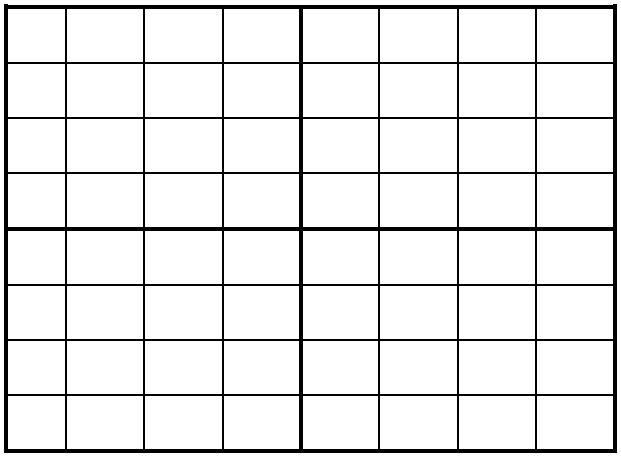
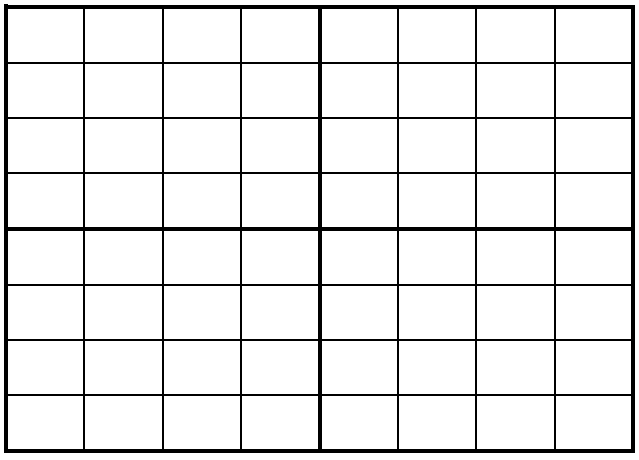


Section: _____



The AIP must inspect all acreage of trees and complete an AT PAIR and map (see Exhibit 4) for insurable and uninsurable trees listed on the acreage report.

A. PAIR Requirements

PAIRs may be initiated at the AIP's discretion except that PAIRs and inspections are required:

(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 for the AT insurance policy (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.).

B. Unreported Trees

If the AIP finds unreported trees during the insurance period that have not been damaged by an insured peril, the AIP must prepare a revised acreage report that includes all unreported insurable trees not entered on the original acreage report.

C. PAIR Completion Instructions

The AIP will conduct the PAIR. The person completing the inspection must possess training equivalent to that of a loss adjuster.

ELEMENT	REQUIRED INFORMATION
Name of Applicant/Insured, County, and Contract Number	Complete the appropriate information that corresponds with the applicant/insured.
Name, Mailing Address, and Phone Number of	Complete the appropriate information that corresponds with the
Was Acreage Report Verified?	Answer "Yes" or "No." If "No" explain why in the "Remarks."
Are other apple orchards owned or operated by the applicant or insured?	Answer "Yes" or "No." If "Yes," note the condition of the other apple orchards owned or operated by the insured. In addition, note the physical location of where the orchard is located. If necessary, enter additional comments in "Remarks."

Apple Tree Orchard Pre-Acceptance Inspection Report (Continued)

ELEMENT	REQUIRED INFORMATION
Is orchard managed by owner?	Check "Yes" or "No." If "No," enter manager's name, address, and telephone number.
Is orchard located in an established apple area?	Answer "Yes" or "No." If "No," explain the general growing conditions and where the orchard is physically located. Enter additional comments in "Remarks."
Unit Number	Enter unit number from the Summary of Coverage after it is verified to be correct.
Variety	Appropriate variety name.
Acres in Block	Number of acres in the block, rounded to tenths.
Tree Spacing	Spacing in feet (e.g., 15 x 15). If spacing varies, enter "varying" and explain in "Remarks."
Tree Count	Enter total number of trees in the block acreage. Enter an estimate (identify as "Est") if accurate determination is impractical.
Month & Year Set	Enter the month and year of: (1) Original planting, or (2) Replacement, if more than 10 percent of the trees on any unit have been replanted.
Tree Condition	Enter "acceptable" or "unacceptable" as applicable. Explain any "unacceptable" tree conditions in "Remarks."
Rate Area	The correct rate class from the AD. Verify with the Summary of Coverage, and if the rate class is found to be incorrect, revise according to AIP instructions. See the LAM.
Weed Control Measures	Enter one of the following: a. "**CWC**" Chemical Weed Control; b. "**W/O CWC**" Weed Control Without Chemicals; or c. "**None**" No Weed Control.
Excluded Trees	Identify trees which are uninsurable due to policy requirements such as trees not meeting an age requirement, etc. Leave unit column blank and enter "Excluded" in column for such trees. Explain any entry in the Remarks. Report uninsurable trees/blocks/units on the acreage report.

Apple Tree Orchard Pre-Acceptance Inspection Report (Continued)

ELEMENT	REQUIRED INFORMATION
Result of Inspection Check "A" or Check "B"	**Check "A" if:** There are no indications of a change in the data reported. **Check "B" if:** There are changes needed. Enter "A Revised Acreage
Remarks	Note any of the following: (1) The number of trees in the original planting pattern. (2) If more than 10 percent of the trees on any unit have been replaced, enter the total number of trees per acre in new pattern, and the total number of new trees set out with the appropriate dates. (3) If any insurable tree acreage is set out in a new pattern (intersets), enter the number of trees per acre in a new pattern, and the total number of new trees set out with the appropriate dates. (4) Any unusual conditions in the orchard or local growing area. (5) Variations in tree spacing within an orchard. (6) If the Fire Blight Endorsement is in effect. (7) Any reasons for recommending insurance coverage not attach (including for a trellis orchard, the condition of the trellis and its susceptibility to failure (e.g., due to wind, etc.) increasing the probability of tree damage); existing tree damage, including fire blight damage. See Exhibit 6, Trellis Inspection Report. See Para. 15D for additional fire blight instructions. (8) Note any damage (e.g., hail, wind, freeze, etc.) and where such damage occurred. Explain in detail and provide the month/year of damage. For fire blight, the date of damage will be the date of the inspection.
Is application/acreage report recommended for acceptance?	Check "Yes" or "No" box, as applicable. If trees in the unit are damaged by any cause including fire blight or the block/unit is planted on a trellis system that is not acceptable, the application may be accepted but those damaged blocks/units (damaged units, if fire blight damaged), or those blocks/units with unacceptable trellises will be designated as uninsurable in the Remarks section. See section 3(b) of the Fire Blight Endorsement for guidelines on reestablishing insurability of infected units. See Trellis Inspection Report, Exhibit 6 for determining trellis acceptability.

Apple Tree Orchard Pre-Acceptance Inspection Report (Continued)

Orchard Inspector's Signature	Inspector signs report.
DATE	Inspector enters date of report (MM/DD/YYYY).

Apple Tree Orchard Pre-Acceptance Inspection Report (Continued)

APPLE TREE ORCHARD PRE-ACCEPTANCE INSPECTION REPORT

Applicant or Insured	County	Contract Number
I.M. Insured	Walla Walla	XX-XXX-XXXXX

Applicant/Insured Address

RR 1
WALLA WALLA, WASHINGTON

Telephone Number (509) 522-1234

Note condition of other apple orchards owned or managed by applicant or insured

N/A

Is Orchard Managed by Owner? [ ] NO [X] YES

If "No" who manages it?

Telephone Number:
(509) 522-1234

Is orchard located in an established apple area?
YES

UNIT NUMBER	VARIETY	ACRES IN BLOCK	TREE SPACING	TREE COUNT	YEAR SET	TREE CONDITION	RATE	WEED CONTROL MEASURES
0001-0001	RED	20.0	10 X 20	4356	MM/YYYY	ACCEPTABLE	D03	NONE
0001-0002	GOLDEN	20.0	10 X 20	4356	MM/YYYY	ACCEPTABLE	D03	NONE
18 EXCLUDED TREES								

The Acreage Covered By The Above Contract Was Inspected On Date Shown Below With The Following Results:

A. X Nothing Found To Require A Change In The Data Reported.

B. _____ Data Reported Was Found To Be Such That _____ Was Prepared.

REMARKS

UNITS 00010001 and:0002, trees on moderate slope. Non-trellis orchards.

Excluded trees were underage.

Fire Blight Endorsement not applicable.

Is application/acreage report recommended for acceptance?	Code Number	Orchard Inspector's Signature	Date
[X] YES [ ] NO	XXXX	*I. M. INSPECTOR*	MM/DD/YYYY

Trellis Inspection Report

TRELLIS INSPECTION REPORT			
Applicant or Insured I.M. Insured	County Walla Walla	Contract Number XX-XXX-XXXXX	Unit Number/Block Number 0001-0000BU/01

Applicant/Insured Address RR ONE WALLA WALLA, WASHINGTON Telephone Number (509) 522-1234	Note conditions of other apple orchard owned or managed by applicant or insured N/A
Is Orchard Managed by Owner? [ ] NO [X] YES If "No" who manages it? Telephone Number: (509) 522-1234	Is orchard located in an established apple area? YES

Circle the Applicable Point Value. Total All Point Values. Enter the Result in the Total Block

INSPECTION ELEMENT	Points
When was the trellis system built? a. In or after 2010 b. Before 2010	a. 5 b. 0
What is the diameter of the wood trellis posts? a. 5 inches in diameter b. 4 inches in diameter c. Less than 4-inch diameter	a. 5 b. 0 c. -5
Treated with Chromated Copper Arsenite (CCA). a. Yes b. No	a. 5 b. 0
Are the trellis posts metal? a. Yes b. No	a. 10 b. 0
What is the length of end- and mid-row wood posts? a. 12 feet or greater b. 10 or 11 feet c. Less than 10 feet	a. 5 b. 0 c. -5
What percentage of the trellis post length is underground? a. 33% or greater b. 25-33% c. Less than 25%	a. 5 b. 0 c. -5
Are posts broken or rotten? a. No b. Yes	a. 5 b. -5
Is the wire at least class 3, 12.5 gauge high-tensile? a. Yes b. No	a. 5 b. 0

Trellis Inspection Report (Continued)

What is the number of vertical wires? a. 4 or greater b. Less than 4	a. 5 b. 0
Are trellis anchors installed? a. Yes b. No	a. 5 b. 0
Are the anchors buried at least 4 feet into undisturbed soil? a. Yes b. No	a. 5 b. 0
What is the spacing of support wires? a. At least every 2-2.5 feet b. Less than 2 feet	a. 5 b. 0
Total Points	

Trellis is unacceptable if the total points is less than 25.

Recommendation:

1. Approve Yes ☐
2. Disapprove No ☐

[1]If metal posts are used, inspection elements for wood posts do not apply.

Orchard Inspector's Signature	Inspector signs report.
DATE	Inspector enters date of report (MM/DD/YYYY).

Apple Tree Age Determinations

Age/Leaf year is required to determine the stage of the trees and for insurability requirements in accordance with the CP.

To determine Age/Leaf Year use the following formula.

X	**=**	**Policy Crop Year**
Y	**=**	**Set Out/Graft Year**
Formula: (X – Y) -1	**=**	**Age/Leaf Years**

Crop year is defined in the CP as a period beginning with the date insurance attaches extending through the June 30 of the following calendar year and designated by the calendar year in which the insurance ends.

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

Example: For crop year 2021, July 1, 2020, is used when determining age. Age in crop year 2021 on apple trees set out in April of 2012 is 8 years.

The 12- month period is the complete 12-month periods that have passed since the crop was set out/grafted. The 12-month period is determined for the 2019 crop year as follows.

SET OUT/GRAFTED	12 MO. PERIOD	CROP YEAR	AGE
April 2012	July 1, 2012	2013	0
	July 1, 2013	2014	1
	July 1, 2014	2015	2
	July 1, 2015	2016	3
	July 1, 2016	2017	4
	July 1, 2017	2018	5
	July 1, 2018	2019	6
	July 1, 2019	2020	7
	July 1, 2020	2021	8

If trees were set out/grafted after July 1, 2012 (i.e., set out July 31, 2012 = 2014 crop year), the age in crop year 2021 would be 7 years [(2021-2014) -1 = 7].

Setting Distances and Approximate Number of Trees Per Acre

TREE SPACING (feet) \ ROW SPACING (feet)	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
3	1037	968	908	854	807	764	726	691	660	631	605	581	558	538	519	501	484
4	778	726	681	641	605	573	545	520	495	473	454	436	419	403	389	376	363
5	622	581	545	512	484	459	436	415	396	379	363	348	335	323	311	300	290
6	519	484	454	427	403	382	363	346	330	316	303	290	279	269	259	250	242
7	444	415	389	366	346	328	311	296	283	271	259	249	239	230	222	215	207
8	389	363	340	320	303	287	275	259	248	237	227	218	209	202	194	188	182
9	346	323	303	285	269	255	242	230	220	210	202	194	186	179	173	167	161
10	311	290	272	256	242	229	218	207	198	189	182	174	168	161	156	150	145
11	283	264	248	233	220	208	198	189	180	172	165	158	152	147	141	137	132
12	259	242	227	214	202	191	182	173	165	158	151	145	140	134	130	125	121
13	239	223	209	197	186	176	168	160	152	146	140	134	129	124	120	116	112
14	222	207	194	183	173	164	156	148	141	135	130	124	120	115	111	107	104
15	207	194	182	171	161	153	145	138	132	126	121	116	112	108	104	100	97
16	194	182	170	160	151	142	135	128	122	116	113	109	105	101	97	94	91
17	183	171	160	151	142	134	127	121	115	110	107	102	99	95	92	88	85
18	173	161	151	142	135	127	121	115	109	104	101	97	93	90	86	83	81
19	164	153	143	135	127	121	115	109	104	100	96	92	88	85	82	79	76
20	156	145	136	128	121	115	109	104	99	95	91	87	84	81	78	75	73
21	148	138	130	122	115	109	104	99	94	90	86	83	80	77	74	72	69
22	141	132	124	116	11	104	99	94	90	86	83	79	76	73	71	68	66

The above figures are for square and hedgerow plantings. Use the formula below for tree and/or row spacings not shown in the chart: Multiply the distance between tree rows by the spacing between trees within the row and divide into 43,560. Refer to the LAM for additional information on how to calculate the number of trees per acre.

Formula: 43,560 sq. ft. per acre ÷ tree spacing (L x W) = Number of trees per acre

Example: Tree row spacing 16.0 feet and tree spacing within rows 12.5 feet.

$$\frac{43{,}560 \text{ sq. ft.}}{16.0 \text{ ft.} \times 12.5 \text{ ft.}} = \frac{43{,}560 \text{ sq. ft.}}{200 \text{ sq. ft.}} = 217.8 = 218 \text{ trees per acre.}$$

Average Revenue Value and Maximum and Minimum Actual CTV Reference Prices Examples

The Summary of Revenue History form contained in the CIH, Exhibit 20F will be used to record the actual sales records reported by the insured. Exhibit 9 of this handbook contains examples for reporting actual records of sales and calculation of the Average Revenue Value. The following instructions replace the applicable instructions contained in CIH Exhibit 20F.

(1) Only four most recent crop year records will be reported on the Summary of Revenue History form by type/group and production practice (conventional, organic-certified, and organic transitional).

(2) Complete all heading entries for the insured's policy for the insured county; except make no entry for FSA FN, legal description, insurable or uninsurable, number of trees, and inspection report date. Strike out UNIT NUMBER and replace with STAGE(S) AND TYPE (GROUP) OF TREES.

(3) Complete entries for columns 1, 2, 3, 4, and 5.

(4) Strike out "NET ACRES" in column 2 and replace with NO. OF TREES (trees in production). Separate records for insurable and uninsurable trees may be provided but are not required. If applicable, make separate line entries for each crop year on the form. Only the production and sales from the insurable trees will be used to calculate the AVERAGE GROSS SALES PER TREE. If separate records (for insurable and uninsurable trees) are not provided, the AVERAGE GROSS SALES PER TREE will be based on the commingled production and sales from all trees in the insured county for the policy.

(5) Revise the heading in column 5 to AVERAGE GROSS SALES PER TREE. The entry in column 5 will be the result of dividing column 4 by the number of insured trees (including uninsured trees if production and sales are commingled) rounded to two decimal places.

(6) Make no entry in column 6.

(7) Strike out "ACRE" in item 8 and replace with "TREE."

(8) Strike out "APPROVED" and "PER ACRE" in item 9 and replace with AVERAGE REVENUE VALUE. The entry in item 9 will be the result of dividing item 8 by item 7, rounded to two decimal places.

The CTV (actual) reference prices based on actual sales records will be updated on an annual basis to reflect the most recent year of sales records. The earliest year of the four-year period will be removed, and the most recent year will be added to compute the four-year average actual sales value per tree.

Average Revenue Value and Maximum and Minimum Actual CTV Reference Prices Examples (Continued)

Average Revenue Value Calculation Example

SUMMARY OF REVENUE HISTORY

CROP YEAR(s):	INSURED'S NAME & ADDRESS:	AGENCY OR SERVICING OFFICE:
2021	I. M. Insured PHONE: XXX-XXX-XXXX	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	FSA FN:	LEGAL DESCRIPTION: SECTION TOWNSHIP RANGE	PRACTICE:
II and III – Group I			Irrigated, Standard Density Conventional

INSURABLE or UNINSURABLE	NUMBER OF TREES:	COUNTY: Any County	STATE: Any State	PRE-ACCEPTANCE PERENNIAL CROP INSPECTION REPORT DATE:

YEAR 1	~~NET ACRES~~ NO. OF TREES 2	~~POUNDS~~ BOXES/~~CARTONS/~~ ~~TONS~~ PRODUCTION 3	GROSS SALES 4	AVERAGE GROSS SALES PER TREE 5	PRE-HARVEST APPRAISAL 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	

	7. TOTAL NUMBER OF YEARS	8. TOTAL AVERAGE GROSS SALES PER ~~ACRE~~ TREE	9. ~~APPROVED~~ AVERAGE REVENUE VALUE[1] ~~PER ACRE~~
	4	229.79	See Calculation Sheet

Average Revenue Value and Maximum and Minimum Actual CTV Reference Prices Examples (Continued)

Average Revenue Value Calculation Example – For orchards containing multiple stages

The apple orchard in the state of Washington contains 2000 insurable trees for the type (varietal group B, fresh production) consisting of stage II and III grown under a conventional and standard density practice. The insured provides the most recent 4 years of acceptable sales records.

The average gross sales/tree are:

2019	$48.53
2018	$58.21
2017	$81.69
2016	$41.36
Avg. Gross Sales	$57.45

CTVE Factor Table		
Standard Density - Washington		
Stage	II	III
Stage Factor	.533	1.000

Using the factor table contained in the CTVE, the average revenue value for each stage is:

Stage II: $57.45 × .533 (stage factor) = $30.62
Stage III: $57.45 × 1.000 (stage factor) = $57.45

The reference revenue value for each stage is:

Stage II: $17.59
Stage III: $32.98

CTV reference prices

Minimum	Maximum
$6	$69
---	$161

Maximum and Minimum Actual CTV Reference Price Calculation Example – For orchards containing multiple stages

Preliminary maximum actual CTV reference price =
Stage II = $133 = {($30.62 ÷ $17.59) × ($69 ÷ 0.90)}
Stage III = $312 = {($57.45 ÷ $32.98) × ($161 ÷ 0.90)}

Maximum actual CTV reference Price =
Stage II = $92 {the lesser of the preliminary price $133 or $92 ($69 × 1.333)}
Stage III = $214 {the lesser of the preliminary price $312 or $214 ($161 × 1.333)}

Preliminary minimum actual CTV reference price =
Stage II = $12 ($30.62 ÷ $17.59) × ($6 ÷ 0.90)}
Stage III = $21 ($57.45 ÷ $32.98) × ($11 ÷ 0.90)}

Minimum actual CTV reference price =
Stage II = $8 {the lesser of the preliminary price $12 or $8 ($6 × 1.333)}
Stage III = $15 {the lesser of the preliminary price $21 or $15 ($11 × 1.333)}

Reference Pictures

The following reference pictures represent examples of apple trees under various conditions. The pictures and subtitles of each picture are intended to provide a general description of these conditions and an estimate of the degree of leaning, as applicable. Actual tree and damage conditions could be different than the conditions represented by pictures contained in this exhibit.

Figure 1: Undamaged Tree - tree-pictures.com

Figure 2: Undamaged Tree - tree-pictures.com

Figure 3: Undamaged Trellis - pinterest.com

Figure 4: Undamaged Trellis - applerootstock.com

Figure 5: Undamaged Staked Orchard - Lynn Kime

Figure 6: Wind Damaged Trellis - Toppled Trees - Oliver Chron

Figure 7: Wind Damage - Toppled Tree - Backroad Journal.Wordpress.com

Reference Pictures (Continued)

Figure 8: Wind (100%) Damage - Broken Trunk - iStock

Figure 9: Wind Damage - Leaning Trees 15 - 30 Degrees - homeguides.sfgate.com

Figure 10: Freeze Damage

Pictures (Continued)

Figure 11: Freeze (Winter) Damage - George Sundin

Figure 12: Freeze (Winter) Damage - Tim Smith

Figure 13: Frost damage - orangepippintrees.com

Figure 14: Hail Damage - Missouri Botanical Garden

Figure 15: Fire blight on apple blossoms
Melanie L. Ivey, Ohio State University

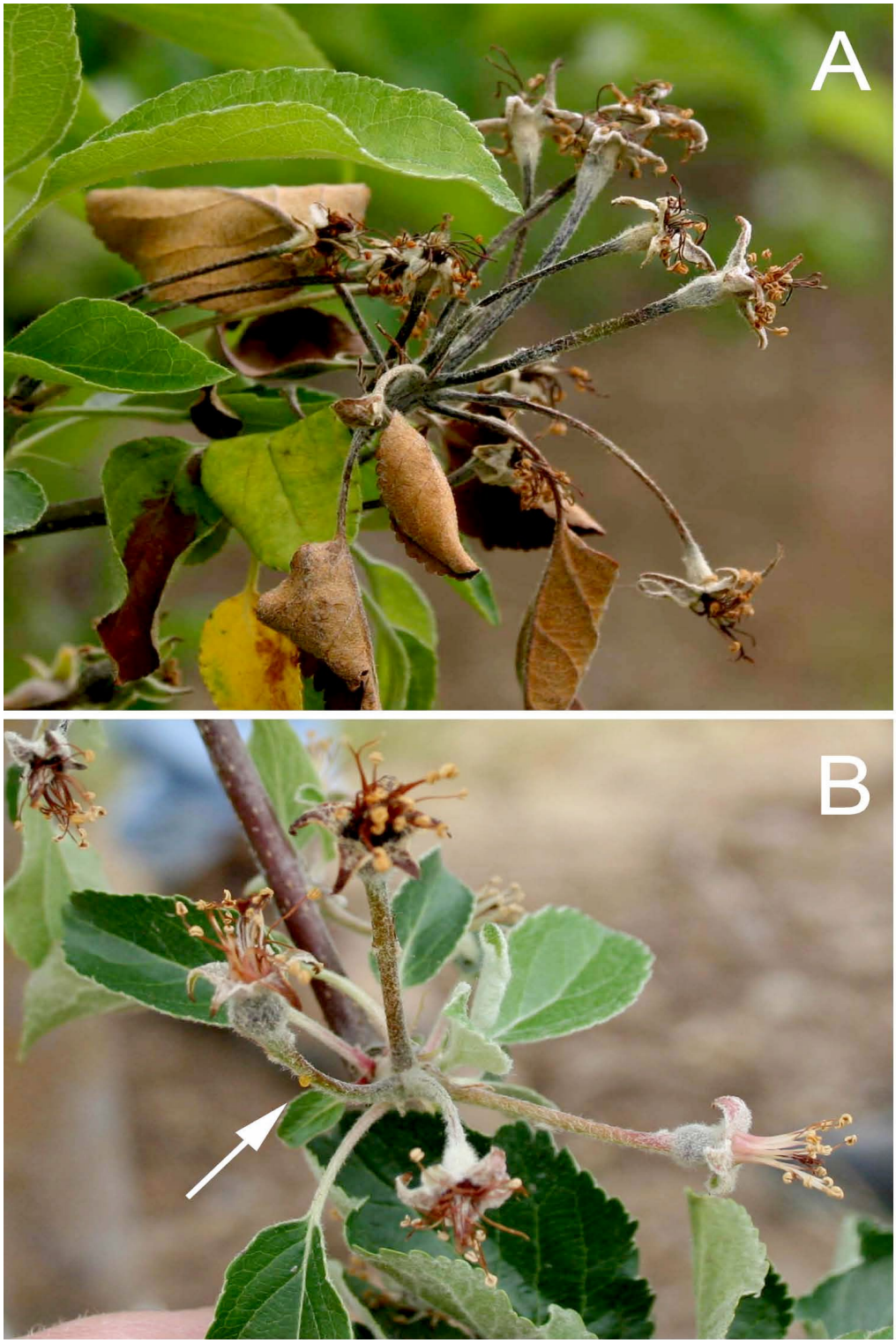


Figure 16: Fire blight on apple blossoms
Bekoske et.al. - Cornell University

Figures 17: Fire blight cankers on young apple tree trunks
Melanie L. Ivey, Ohio State University

Figure 18: Fire blight on mature tree branch and twig
Melanie L. Ivey, Ohio State University

Figure 19: Fire Blight - University of Minnesota Extension

Figure 20: Fire Blight - WSU Tree Fruit - Washington State University

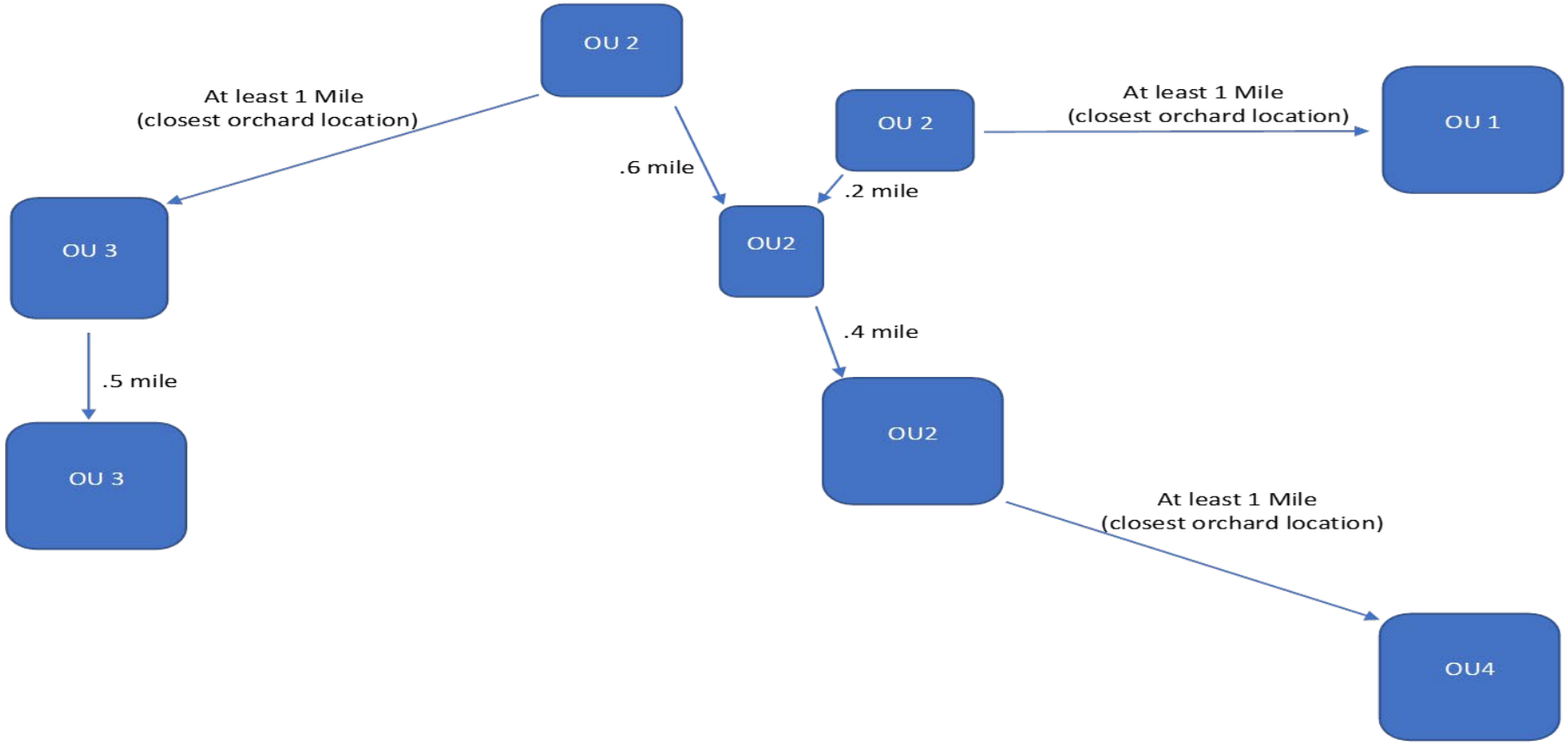
Figure 21: Fire blight - Destroyed tree - Bekoske et.al. - Cornell University

Figure 22: Fire blight cankers on young apple tree trunks
Melanie L. Ivey, Ohio State University

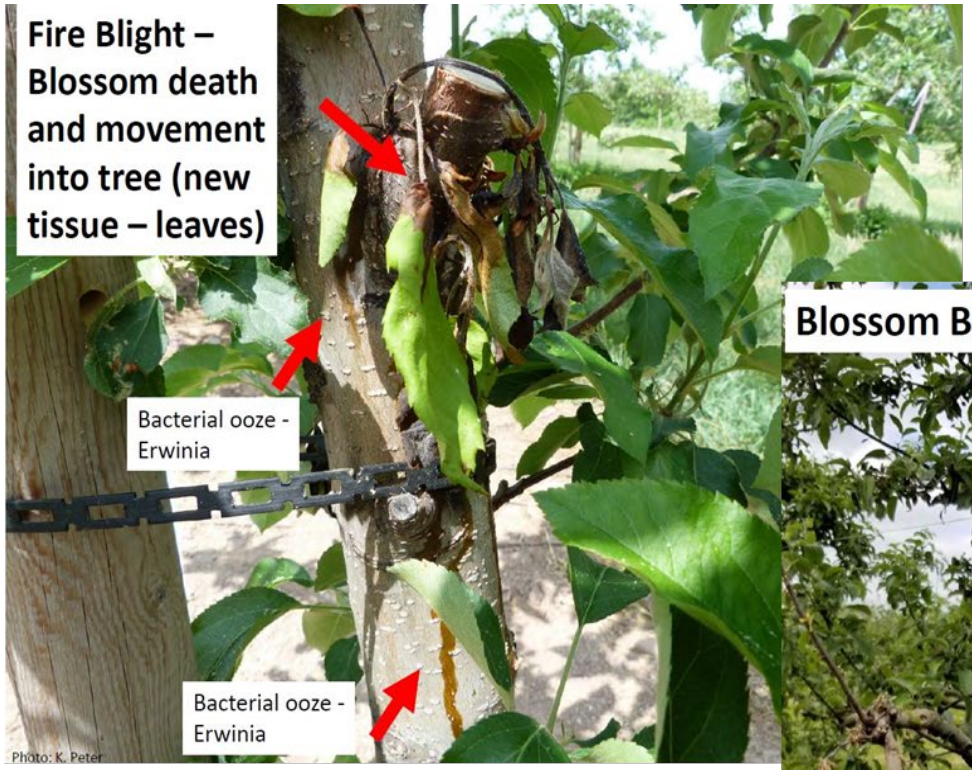
Figure 23: Fire blight cankers on young apple tree trunks and mature tree branch
Melanie L. Ivey, Ohio State University

Optional Unit Determinations

Section 2(b)(2) of the CP authorizes a minimum distance (see the SP) used to qualify separate orchards as optional units. The minimum distance requirement of 1 mile between optional units is established based on the closest location between the separate orchards. Any orchards that are within a one-mile distance of each other will be combined into a single optional unit. A separate orchard meeting the distance requirement but with less than 10 acres will be combined with the nearest optional unit. See the example below for guidance in determining optional units for separate orchards.



Comparison of Symptoms of Fire Blight to Blossom Blast



⇐ Insurable

May 9, 2020 freeze: Diseases caused by *Pseudomonas syringe* pv. *syrginae* appeared

DO NOT confuse blossom blast with fire blight!

← This is blossom blast on apple
← There is no ooze or spread beyond blasted blossoms (like you would observe with fire blight)

NOT Insurable ⇒

Comparison of Symptoms of Fire Blight and Blossom Blast

Fire blight vs. Blossom Blast

	Fire Blight	Blossom Blast
Causal pathogen	*Erwinia amylovora*	*Pseudomonas syringae* pv. *syringae*
Environmental conditions favored to cause disease	**FAVORS WARM WEATHER during bloom** Warm temperatures during bloom (average ~60°F) Can see spread throughout the summer while trees are actively growing (= warm weather)	**FAVORS COLD/FROSTY WEATHER during bloom (upper 20s – low 30s°F)** Frost or freeze events during bloom ***Disease/bacteria shuts down when warm weather occurs***
Symptoms	**Blossoms** – wilting, blackened, can see progression into tree beyond blossom; stem tissue death around where blossom is attached to tree ("canker" = dead tissue in stem developing) **Leaves –** Wilting, will be discolored/blackened; blackened leaf veins and petioles; will see discoloration move into surrounding tissues; shepherd's crook appearance **WILL see oozing (amber-colored)**	**Blossoms** – Wilting, flowers can be brown, dried-looking, papery; can also turn brown to black **Leaves** – Wilting, will be discolored/blackened; blackened leaf veins; WILL NOT see extensive spread like Erwinia; WILL NOT see disease move into stem tissues readily like Erwinia **WILL NOT see oozing**
Spread throughout the orchard?	**YES** – after initial infection: bacteria can spread readily throughout orchard, even within a tree, when disease is active Bacteria can move FAST, thanks to water and wind Can observe new symptoms showing up during the season	**NO** – bacteria will not spread readily; tissue death usually occurs where bacteria were present during frost/freeze event; Bacteria moves SLOW; spread very limited AND: bacteria shuts down when the temps get warmer = no new symptom development
Can the disease cause tree death?	**YES** – Bacteria can systemically invade the tree via the vascular system; can kill young trees readily	**NO** – trees will appear unsightly; however, the trees will rebound during the season and will produce new growth; Bacteria does not systemically invade the tree like Erwinia

#1 Question to ask when faced with "blighted" blossoms or shoot death symptoms: **What was the temperature during bloom or just preceding symptoms appearing (if post bloom)**?

→ IF it was warm = fire blight

→ IF it was cold (frost or freeze event) = blossom blast