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FCIC 24320

ACTUAL PRODUCTION HISTORY (APH)

PISTACHIO PILOT INSURANCE STANDARDS HANDBOOK

**Effective Upon Approval and
until Obsoleted**

**UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250**

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	APPROVED: October 28, 2011 <i>/s/ Tim B Witt</i> Tim B. Witt Deputy Administrator for Product Management

THIS HANDBOOK CONTAINS THE OFFICIAL FCIC APPROVED UNDERWRITING STANDARDS FOR THE PISTACHIO PILOT PROGRAM FOR 2012 AND SUCCEEDING CROP YEARS. ALL APPROVED INSURANCE PROVIDERS ELECTING TO OFFER THE PISTACHIO PILOT PROGRAM MUST UTILIZE THESE STANDARDS.

Effective Date. The Pistachio Pilot Program is available beginning with the 2012 crop year and is authorized until terminated or converted to a permanent program by the FCIC Board of Directors.

Handbook Distribution. Risk Management Agency Directors, Branch Chiefs, Washington, D.C., and Kansas City; Regional and Risk Compliance Field Offices; Approved Insurance Providers, National Appeals Division, National Crop Insurance Services, Crop Insurance Research Bureau; and the RMA public website at www.rma.usda.gov

**PISTACHIO PILOT PROGRAM
INSURANCE STANDARDS HANDBOOK**

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Part 1 General Information and Responsibilities

1 General Information

A. Purpose

This handbook provides procedure for administering the APH-Pistachio Pilot Program using the CIH and LAM via exceptions, changes, and additions. If there is a conflict between this handbook and the CIH or LAM, this handbook controls.

B. Source of Authority

The APH-Pistachio Pilot Program is an RMA developed product approved by the FCIC Board of Directors, under Section 523 of the Federal Crop Insurance Act. This handbook provides the FCIC approved procedures for administering the Pilot.

C. Duration

The APH-Pistachio Pilot Program is available beginning with the 2012 crop year and is authorized until terminated or converted to a permanent program by the FCIC Board of Directors.

D. AIP Option to Offer

Because it is a pilot, AIPs are not required to offer the APH-Pistachio Pilot Program to producers. Accordingly, each AIP must determine whether they will offer the pilot in the designated pilot area. AIPs that elect to offer the pilot must offer it to all eligible producers in the pilot area and must administer the program according to the procedures in this handbook.

E. Pilot Area

See actuarial documents for the pilot area.

F. Applying for APH-Pistachio Pilot Program

AIPs shall use the standard application for the APH-Pistachio Pilot Program. The application must indicate the insured has selected the APH-Pistachio Pilot Crop Provisions along with all other required information.

1 General Information (Continued)

G. Related Handbooks

The following table provides handbooks related to APH-Pistachio Pilot Program.

Important: Not all sections of related handbooks or all procedures in a section apply to the APH-Pistachio Pilot Program. See Part 3 for more information.

Handbook	Purpose
CIH	General underwriting procedures.
LAM	General loss procedures.
Pistachio Loss Adjustment Standards Handbook	Loss procedures for pistachios.

2 Responsibilities

A. AIP Responsibilities

AIPs must use standards, procedures, methods and instructions as authorized by FCIC in the sale and service of crop insurance contracts. Each AIP is responsible for using RMA approved procedure. AIPs should report any pilot program issues or concerns to the Actuarial and Product Design Division (APDD) of the Risk Management Agency (RMA).

B. Insured's Responsibilities

To be eligible for the APH-Pistachio Pilot Program, insureds must comply with all terms and conditions of the Basic Provisions, and the APH-Pistachio Pilot Crop Provisions.

3-20 (Reserved)

Part 2 Insurability

21 Addressing Alternate Bearing in APH Crop Insurance for Pistachios

The alternate bearing nature of pistachio production creates special challenges for an effective crop insurance program. Namely, establishing an approved yield to reflect the expected yield for the next year can be a challenge. Actual Production History (APH) crop insurance programs cover yield losses due to natural causes. When actual yields fall below the approved yield for that crop year, there is an indemnity payout up to the guarantee. For alternate bearing crops, the swings in production are an inherent characteristic of the tree, thus low yields may not be due to an insurable cause of loss.

To address this challenge, the APH-Pistachio Pilot uses a Variability Index to identify units which are likely to have “on” versus “off” years and adjusts the approved yield accordingly. If the previous year was high, the approved yield may be lowered for the current crop year. Likewise, when the yield for the previous year was low, the approved yield may be increased for the current crop year. This approach will better align the guarantee in both ‘on’ and ‘off’ years with the true expected yield.

22 Insurable Types and Practices

A. Types Insurable

For insurance purposes, there are no differences by type, variety or end use. Thus in the actuarial documents, the Type Code will be:

997 No Type Specified

B. Insurable Practices

- (1) Pistachios must be irrigated to be insurable.
- (2) Organic practices (Transitional and Certified) are also insurable.
- (3) Insurable practices listed in the actuarial documents are:

002 Irrigated

702 Organic (Certified) Irrigated

712 Organic (Transitional) Irrigated

23 Units and Coverage Levels

A. Units

The APH-Pistachio Pilot Crop Provisions, Section 3, allow basic units to be divided into optional units if each optional unit is located on non-contiguous land, unless limited in the Special Provisions.

As with other insurance plans:

- all optional units must be identified on the forms used to report production and acreage
- when adjusting a loss, units may be adjusted or combined to reflect the actual unit structure
- for optional units acceptable records of production must be available for at least the most recent crop year
- The insured must have production evidence, which can be independently verified, including the acreage and production used to determine the approved APH yield or amount of insurance for each optional unit.

The Basic Provisions, Section 34, which allow enterprise and whole-farm units do not apply to pistachios.

B. Coverage Levels

Coverage is available in 5 percent (5%) increments:

- 50 percent (50%);
- 55 percent (55%);
- 60 percent (60%);
- 65 percent (65%);
- 70 percent (70%); and
- 75 percent (75%).

24 Reports

Acceptable supporting records for delivered pistachios include:

- delivery statements;
- pool closing statements;
- production recaps or settlement reports provided by the processor only if the records clearly identify the production unit; and
- all records, regardless of the type of record, must include the assessed weight determined according to regulations of the Administrative Committee for Pistachios.

25-30 (Reserved)

Part 3 Applicability of Handbooks

31 General Overview

This Part identifies information specific to the applicability of the CIH, LAM, and any other procedural issuance that may require supplemental information with regards to pistachios. Unless specifically amended, supplemented, or deleted by information in this handbook, all policy and procedure issuances apply to the APH-Pistachio Pilot.

Key features of the APH-Pistachio Pilot:

Pistachios are a perennial crop and existing procedures for perennials will apply.

Some procedures are modified to address alternate bearing which is a special characteristic of pistachio production. In particular,

- The approved yield for each unit will be determined by adjusting the average APH yield for expected alternate bearing effects. There will be no limitations on year to year changes in Approved APH Yield
- All APH databases will contain at least four years of actual yields. There will be T-yields, no cups, and no YA substitutions.

AIPs will be responsible for calculating and documenting the approved yield adjustments as applicable.

32 Specific Information Regarding the Crop Insurance Handbook

The general rules of crop insurance, as provided in the CIH, apply to the APH-Pistachio Pilot Program.

The following table provides general information, changes, additions, deletions and/or modifications, and termed supplemental instructions regarding the applicability of the CIH to the APH-Pistachio Pilot Program.

32 Specific Information Regarding the Crop Insurance Handbook	
CIH Section Reference	Supplemental Instructions
7	Relevant underwriting and AIP responsibilities provided in CIH Section 7 apply.
8	Applies to APH Pistachio Pilot Program.
9	Does not apply to APH Pistachio Pilot Program.
10	<i>Optional Units</i> - Optional units may be established only if each optional unit is located on non-contiguous land. The supporting records must indicate production for each optional unit and must account for total production from the planted acreage.

CIH Section Reference	Supplemental Instructions
11	<p>Organic Section 11 is modified as follows: Organic: Organic (Certified) and Organic (Transitional) practices are insurable. Variable T-Yield procedures do not apply.</p> <p>Section 11 F - APH Database Determination and Reporting Instructions –This procedure is modified because T-Yields are not applicable to the APH-Pistachio program. Actual conventional yields from the acreage are carried over to the certified organic and transitional databases as described below.</p> <p style="padding-left: 40px;">F(1)(a)3: Does not apply to the APH-Pistachio program.</p> <p style="padding-left: 40px;">F(1)(b): Does not apply to the APH-Pistachio program.</p> <p>If there are less than four years of actual yields for the transitional acreage available in the transitional APH database, use up to the most recent four years of actual yields from the conventional database with each yield transferred over reduced by twenty percent (20%). The reduced actual yields from the conventional acreage will be replaced by actual yield history for the transitional acreage as it is collected.</p> <p>For both certified organic and transitional acreage, the yield variability index procedure in this handbook applies.</p> <p>Section 11 G – Determining Approved APH yields for Acreage without an Organic Plan or Written Documentation from a Certifying Agent – Procedure modified as follows:</p> <p style="padding-left: 40px;">G(1) Transitioning Acreage. For acreage transitioning to the organic (certified) practice without an organic plan or written documentation from a certifying agent indicating an organic plan is in effect, the AIP must reduce the approved APH yield for the conventional database to reflect the change in practice. The approved APH yield for the conventional APH database should be reduced using the following procedure:</p> <p style="padding-left: 80px;">(a) Apply the yield variability index procedures, (b) Multiply the result in (a) by 0.80 to account for the twenty percent (20%) reduction due to the change in practice, (c) Report the resulting approved yield.</p> <p>Continue to make this adjustment until the acreage becomes certified organic or the insured reverts back to conventional farming practices.</p>

CIH Section Reference	Supplemental Instructions
	<p>G(2) Certified Acreage. When acreage previously transitioning to the organic (certified) practice without an organic plan or written documentation from a certifying agent indicating an organic plan is in effect, and the acreage becomes certified organic, the AIP must consider the annual yields from the transitional time period in determining the approved APH yield for the certified organic acreage.</p> <p>(a) Four or more years of certified organic production history. If the insured has four or more years of certified organic annual yields, the AIP does not make adjustments to the certified organic approved yield other than the applicable yield variability adjustment.</p> <p>(b) Less than four years of certified organic production history. If the insured has less than four years of certified organic annual yields, the AIP must assure that any transitional acreage without an organic plan or written documentation in effect from a certifying agent is accounted for in the certified organic production history. The database should be established and approved APH yield calculated by:</p> <ol style="list-style-type: none"> 1. Use any certified organic annual yields, 2. Include the annual yields from the transitional acreage (without a plan or written documentation from a certifying agent indicating an organic plan is in effect) in the most recent four APH crop years, 3. Complete the database with prior conventional yields, reduced by twenty percent (20%) to account for the change in practice. <p>For both certified organic and transitional acreage, the yield variability index procedure in this handbook applies.</p> <p>For acreage that converts to a conventional practice from an organic (certified) practice, use the most recent four years of certified organic yields with each yield transferred over without adjustment. The actual yields from the certified organic acreage will be replaced by actual yield history for the conventional acreage as it is collected.</p>
13	Applies to APH Pistachio Pilot Program.
14	Applies to APH Pistachio Pilot Program.
15	Does not apply to APH Pistachio Pilot Program.
16	Pistachios are an eligible Category C crop. Category C APH crop procedures apply for pistachios with included modifications.

32 Specific Information Regarding the Crop Insurance Handbook	
CIH Section Reference	Supplemental Instructions
16 C	<p>Age/Leaf Year Determination - Rooted pistachio plants are usually planted in spring, then once established are budded in the field with the fruiting cultivar. For purposes of the pilot, the calendar year the trees are grafted is considered the year of “set out”.</p> <p>The standard determination of “Leaf Year” for perennials applies: subtract the set out year from the calendar year of insurance then add one year.</p> <p>Example: Rootstock is planted in April and grafted in July of 2003. The “set out” year is 2003. Harvestable fruit production is expected to begin in the sixth leaf year, 2008. The minimum age the orchard would become insurable is the 10th leaf year, 2012.</p>
16 D	<p>PAW (Producer’s Pre-Acceptance Worksheet) - Apply the procedures in this section with the following supplemental instructions:</p> <p>Block Number - Certification of information by block is necessary to document differences in planting date, type, variety, rootstock, etc. List uninsurable block(s) on separate line(s) as needed.</p>
16 E	<p>PAIR A Pre-Acceptance Inspection Report (PAIR) is required for new insureds.</p> <ul style="list-style-type: none"> • Apply the procedures in Exhibit 16 of the CIH to complete the CAW with the following supplemental instructions: • For pistachios, use the following CAW as provided in Exhibit 16 of the CIH: <p><i>Almond/Citrus/Figs/Fresh Plums/Macadamia Nuts/Pecans/Prunes/Stonefruit/Walnuts.</i></p> <p>Special attention must be given to water supplies for irrigation, arrangements for harvesting and processing, and documentation of the number of bearing trees per planted acre.</p>
16 G 1	<p>Block Reporting - Block reporting allows the insured to report and maintain separate production and acreage by block. An insured may report production and an AIP may establish an APH database by block. Reporting by block allows production from underage trees or acreage not meeting production minimums to be maintained separately.</p> <p>The APH database is established using the APH Block Production worksheet [see Exh. 16L and DSSH].</p>
16 H	<p>APH Database Establishment Methods - A minimum of four years of actual yields are required in each APH database to calculate an approved yield.</p>
16 H 4	<p>Does not apply to APH Pistachio Pilot Program.</p>

CIH Section Reference	Supplemental Instructions								
16 H 6	<p>Added Insurable Acreage - Added insurable acreage is acreage that becomes insurable in the current policy crop year because policy requirements for minimum age are met.</p> <p>For pistachios the minimum age requirement is 10 leaf years. The procedures in the CIH Section 16H(6)(a) for specific crops in AZ, CA, HI and UT and 16H(6)(b) will apply to added insurable acreage when the 10 leaf year minimum age requirement is met.</p>								
16 H 7	<p>Added new land - Land may be added to an insured's pistachio policy prior to the SCD of each year of the two year module as long as the insured can provide four years of acceptable production records for the land being added and the acreage added meets the minimum requirements to be insurable under the policy. An insured may use production records from another producer for the acreage being added but the records must contain at least four years of production and must meet the requirements to qualify as acceptable verifiable records shown in Part 2 Section 24 of this Handbook</p>								
16 H 8	<p>Test for High Variability of Actual Yields - Substitute new procedure as follows.</p> <p>In lieu of the procedure specified in CIH 16 H (8), the following procedure is to be used for pistachios in order to determine the approved yield.</p> <p>If the orchard is 10 or 11 leaf years old the variability adjustments below are not applicable. The Approved APH Yield for 10 and 11 leaf year old orchards will be the simple average of the most recent 4 years of history.</p> <p>If the orchard is 12 leaf years or older, the following variability adjustment procedure will be applied by the AIP to determine Approved Yield.</p> <p>For this narrative, assume the crop year is 2012, so the most recent years of yield data are 2011, 2010, etc.... Examples are provided in Exhibit 3.</p> <p>Step 1. Calculate the average yield from the APH database. Use the most recent, largest even number of yields if there fewer than 10 years of yields.</p> <table border="1" data-bbox="334 1499 1448 1650"> <tbody> <tr> <td>If the database has 10 yields</td> <td>Use all 10 years</td> </tr> <tr> <td>If the database has 9 or 8 yields</td> <td>Use most recent 8,</td> </tr> <tr> <td>If the database has 7 or 6 yields</td> <td>Use most recent 6,</td> </tr> <tr> <td>If the database has 5 or 4 yields</td> <td>Use most recent 4,</td> </tr> </tbody> </table> <p>Step 2. Calculate the average yield resulting from the two (2) years prior to the most recent crop year, for our example it would be crop years 2010 and 2009.</p> <p>Step 3. Calculate the Variability Index by dividing the most recent year's yield by the</p>	If the database has 10 yields	Use all 10 years	If the database has 9 or 8 yields	Use most recent 8,	If the database has 7 or 6 yields	Use most recent 6,	If the database has 5 or 4 yields	Use most recent 4,
If the database has 10 yields	Use all 10 years								
If the database has 9 or 8 yields	Use most recent 8,								
If the database has 7 or 6 yields	Use most recent 6,								
If the database has 5 or 4 yields	Use most recent 4,								

**CIH
Section
Reference**

Supplemental Instructions

average yield calculated in Step 2; multiply by 100; round to nearest whole number.

If the Variability Index is:	
Less than or equal to 75	the most recent year was an "off" year
Between 75 and 125	no adjustment
Greater than or equal to 125	the most recent year was an "on" year

Step 4. Determine the Variability Adjustment Factor:

If the Variability Index is:	The Variability Adjustment Factor is:
Less than or equal to 75	1.40
Between 75 and 125	1.00
Greater than or equal to 125	0.60

Step 5. Calculate the approved yield by multiplying the average yield calculated in Step 1 by the Variability Adjustment Factor determined in step 4.

If the Variability Index is:	The Approved Yield is calculated as:
Less than or equal to 75	1.40 x APH
Between 75 and 125	1.00 x APH
Greater than or equal to 125	0.60 x APH

Step 6. Enter the Approved Yield from Step 5 into the APH database as appropriate. Recall, NO caps, cups or YA substitutions are allowed.

- Alternate bearing adjustments will be determined and documentation maintained by AIPs.
- The approved yields must be submitted, as appropriate, based on guidance from Appendix III.

32 Specific Information Regarding the Crop Insurance Handbook	
CIH Section Reference	Supplemental Instructions
16 H 8 (d)	Downward Trending Test(s) are not required. Special case indicators D and DF are not applicable.
16 H 8 (e)	Does not apply to APH Pistachio Pilot Program.
16 H 8 (f)	Requests for RO review are limited to consideration of the yield data and calculation accuracy. The validity of the Variability Index and Variability Adjustment Factors is not reviewable.
16 H 9 (d)	Approved APH Yield - The approved APH yield may be different from the simple average due to AIP adjustments by formula and procedures contained in this Handbook.
16 H 11	Yield Adjustment - Not applicable, flag 12 is not appropriate.
16 H 12	Yield Limitations - There are no limits on year to year changes in approved yield. Cups are not authorized.
16J	<p>Evidence of Production -</p> <p>Acceptable supporting records for delivered pistachios include:</p> <ul style="list-style-type: none"> • delivery statements, • pool closing statements, • production recaps or settlement reports provided by the processor only if the production unit is clearly identified, • all records, regardless of the type of record, must include the assessed weight determined according to regulations of the Administrative Committee for Pistachios. <p>Assessed Weight - The total pounds of edible split in-shell, total edible kernels from shelling stock and edible kernels from closed shell. Total edible kernels from shelling stock and edible kernels from closed shell are converted to in-shell equivalents according to Administrative Committee for Pistachios regulations.</p>
17	Does not apply to APH Pistachio Pilot Program.
18	Does not apply to APH Pistachio Pilot Program.
19	Applies to APH Pistachio Pilot Program.
20	Does not apply to APH Pistachio Pilot Program.

33 Prevented Planting Loss Adjustment Standards Handbook

The Prevented Planting Loss Adjustment Standards Handbook is not applicable to the APH Pistachios Pilot Program. Prevented planting coverage is not available for pistachios.

34 Loss Adjustment Manual

The procedures identified in the LAM are adopted for the APH Pistachios Pilot Program.

The APH-Pistachio Pilot Program Loss Adjustment Standard Handbook applies to this pilot.

36-40 (Reserved)

Part 4 Other Information

Exhibit 1

Acronyms

The following table provides approved acronyms used in this handbook.

Approved Acronyms	Term
AIP	Approved Insurance Provider
APDD	Actuarial and Product Design Division
APH	Actual Production History
CAT	Catastrophic Risk Protection
CAW	Crop Addendum Worksheet
CIH	Crop Insurance Handbook
DSSH	Document and Supplemental Standards Handbook
FCIC	Federal Crop Insurance Corporation
LAM	Loss Adjustment Manual
NASS	National Agricultural Statistics Service
PAIR	Pre-Acceptance Inspection Report
PASS	Policy Acceptance and Storage System
PAW	Producer's Pre-Acceptance Worksheet
RMA	Risk Management Agency

Definitions

The following are definitions of the terms used within this handbook.

Agent- the same meaning as the term “agent” in the Standard Reinsurance Agreement.

Approved Insurance Provider (AIP)- the same meaning as the term “approved insurance provider” in the Federal Crop Insurance Act. For the purposes of this handbook, Approved Insurance Provider includes managing general agents as defined in the Standard Reinsurance Agreement.

Alternate bearing – A crop production situation where there is a tendency for a high yield to be followed the next year by a lower yield, and a low yield by a high yield. The pattern begins with individual trees which become synchronized as poor conditions force high producing trees into a low state along with those already low, and subsequently all trees tend to higher production the following year.

Bearing Trees - Pistachio nuts are produced only by female trees. Each planting requires non-bearing male trees for pollination. The ratios of bearing trees to pollinators and planting patterns are particular to each field.

Crop Year– Calendar year in which the harvest occurs.

Assessed Weight - The total pounds of edible split in-shell, total edible kernels from shelling stock and edible kernels from closed shell. Total edible kernels from shelling stock and edible kernels from closed shell are converted to in-shell equivalents according to Administrative Committee for Pistachios regulations.

Approved yield (per acre) - The quantity of pistachios (total assessed weight pounds per acre) determined by multiplying the average production history (APH) yield per acre by adjustments for alternate bearing. Examples are given in Part 14 below.

Leaf year - Subtract the set out from the crop year, then add one year.

Example: Rootstock is planted in April and grafted in July of 2003. The “set out” year is 2003. Harvestable fruit production is expected to begin in 2008 the sixth leaf year ($6 = 2008 - 2003 + 1$). The orchard would become insurable in 2012 the 10th leaf year ($10 = 2012 - 2003 + 1$).

Pesticide- A generic term to include fungicides, herbicides, insecticides, rodenticides, etc.

Practice – Insurable practices listed in the actuarial documents.

Production guarantee (per acre) - The quantity of pistachios (total assessed weight pounds per acre) determined by multiplying the approved yield per acre by the coverage level percentage.

Set out year– The calendar year the trees are grafted.

Type – Insurable types listed in the actuarial documents.

Variability Index– A number comparing the most recent yield to the average of the two previous years. The index is used to identify units which are likely to have “on” versus “off” years. When the previous year has been “on”, the ratio will be greater than one, and an “off” year is likely for the current insurance year. When the previous year was “off”, the ratio will be less than one, and an “on” year may be expected.

Examples – Alternate Bearing

Example A 10 Year Data Base --- Adjust Approved APH Yield lower than Average APH Yield because expecting "Off" Year

In this example the crop insurance year is 2012 and the previous year is 2011. The insured has production records for 10 years, 2011 back to 2002 and an Average APH Yield of 3,638 pounds. The Variability Index is calculated by dividing the 2011 yield by the average of 2010 and 2009 yields: $4,478 / [(5,424 + 876) / 2] = 3,140$. The 143 index value is above 125 indicating that 2011 was an "on" year. Therefore the crop year 2012 is expected to be lower (an "off" year) and the adjustment factor would be 0.60. You multiply the Average APH Yield by the adjustment factor to determine the Approved APH Yield for Crop Year 2012: $3,638 \times 0.60 = 2,183$

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Crop Year	2012
3,420	4,713	3,922	2,590	4,919	3,842	2,215	5,424	856	4,478	Average APH Yield =	3,638

							Recent Average = sum of			5,424	856	divide by 2 =	3,140
Adjustment Parameters		Variability Index =		2011 Yield		=		4,478		x 100 =		143	
Threshold	Raise	Lower	Recent Average		=		3,140						
25 over 100		0.40											
25 below 100	0.40												
If			then			Factor							
index >= 125			Adjust lower			1 - 0.40		0.60		0.60			
125 < index < 75			No Adjustment					1.00		-			
Index <= 75			Adjust Upward			1 + 0.40		1.40		-			

Multiply Average APH Yield by the Factor

Approved APH Yield for 2012 2183

Example B 8 Year Data Base --- Adjust Approved APH Yield higher than Average APH Yield because expecting "On" Year

In this example the crop insurance year is 2012 and the previous year is 2011. The insured has production records for 8 years, 2011 back to 2004 and an Average APH Yield of 1,760 pounds. The Variability Index is calculated by dividing the 2011 yield by the average of 2010 and 2009 yields: $4,478 / [(2,269 + 2,612) / 2 = 2,441]$. The 63 index value is below 75 indicating that 2011 was an "off" year. Therefore the crop year 2012 is expected to be higher (an "on" year) and the adjustment factor would be 1.40. You multiply the Average APH Yield by the adjustment factor to determine the Approved APH Yield for Crop Year 2012: $1,760 \times 1.40 = 2,464$

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Crop Year Average APH Yield =	2012
		1,163	1,513	1,664	1,348	1,967	2,269	2,612	1,546		1,760

Recent Average = sum of 2,269 + 2,612 divide by 2 = 2,441

Adjustment Parameters			2011 Yield	Recent Average	Factor	
Threshold	Raise	Lower	1,546	2,441		
25 over 100		0.40				
25 below 100	0.40					
If		then	Factor			
	index => 125	Adjust lower	1 - 0.40	0.60		-
	125 < index < 75	No Adjustment		1.00		-
	Index <= 75	Adjust Upward	1 + 0.40	1.40		1.40

Multiply Average APH Yield by the Factor

Approved APH Yield for 2012 **2,464**

Example C 5 Year Data Base (Use most recent 4 years) --- No Adjustment, Approved APH Yield same as Average APH Yield

In this example the crop insurance year is 2012 and the previous year is 2011. The insured has production records for 5 years, 2011 back to 2007 and an Average APH Yield of 1,903 pounds. The Variability Index is calculated by dividing the 2011 yield by the average of 2010 and 2009 yields: $2,388 / [(2,012 + 2,258) / 2] = 2,135$. The 112 index value is between 75 and 125 so no adjustment for "on" or "off" year is needed. The adjustment factor would be 1.00. You multiply the Average APH Yield by the adjustment factor to determine the Approved APH Yield for Crop Year 2012: $1,903 \times 1.00 = 1,903$

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Crop Year	2012
					688	953	2,012	2,258	2,388	Average APH Yield =	1,903

						Recent Average = sum of 2,012 2,258 divide by 2 = 2,135					
Adjustment Parameters			Variability Index =	2011 Yield	=	2,388	x 100 =	112			
Threshold	Raise	Lower		Recent Average		2,135					
25 over 100		0.40									
25 below 100	0.40										
			If	then		Factor					
			index => 125	Adjust lower		1 - 0.40	0.60				-
			125 < index < 75	No Adjustment			1.00				1.00
			Index <= 75	Adjust Upward		1 + 0.40	1.40				-

Multiply Average APH Yield by the Factor

Approved APH Yield for 2012 1,903

Example D 7 Year Data Base (Use most recent 6 years) --- Adjust Approved APH Yield lower than Average APH Yield because expecting "Off" Year

In this example the crop insurance year is 2012 and the previous year is 2011. The insured has production records for 7 years, 2011 back to 2005 and an Average APH Yield of 1,971 pounds. The Variability Index is calculated by dividing the 2011 yield by the average of 2010 and 2009 yields: $2,634 / [(1,975 + 627) / 2 = 1,301]$. The 202 index value is above 125 indicating that 2011 was an "on" year. Therefore the crop year 2012 is expected to be lower (an "off" year) and the adjustment factor would be 0.60. You multiply the Average APH Yield by the adjustment factor to determine the Approved APH Yield for Crop Year 2012: $1,971 \times 0.60 = 1,183$

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Crop Year	2012
			1352	3,426	2,515	648	1,975	627	2,634	Average APH Yield =	1,971

				Recent Average = sum of 1,975 627 divide by 2 = 1,301							
Adjustment Parameters			Variability Index	=	2011 Yield	=	2,634	x 100 =	202		
Threshold	Raise	Lower			Recent Average		1,301				
25 over 100		0.40									
25 below 100	0.40										
			If		then		Factor				
			index => 125		Adjust lower		1 - 0.40	0.60			0.60
			125 < index < 75		No Adjustment			1.00			-
			Index <= 75		Adjust Upward		1 + 0.40	1.40			-

Multiply Average APH Yield by the Factor

Approved APH Yield for 2012 1,183

Transition Examples

Examples for transitioning under an organic plan:

- (1) Establishment and maintenance of the Transitional APH database.

Scenario:

In 2006, an insured transitions conventional acreage using organic practices, following an approved plan. The insured has no prior organic farming history.

- (a) The insured's yield history (conventional APH database) prior to transitioning the acreage under the organic practice.

(a) Conventional APH Database			
Crop Year: 2006		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
1996	11875	125	A 953
1997	183625	125	A 1469
1998	89750	125	A 718
1999	168125	125	A 1345
2000	125125	125	A 1001
2001	151250	125	A 1210
2002	117000	125	A 936
2003	209000	125	A 1672
2004	103125	125	A 825
2005	224500	125	A 1796
Approved APH Yield			716

- (b) The transitional APH Database will consist of four reduced actual yields from the conventional acreage in the unit when not actual transitional yields are available.

(b) Transitional APH Database			
Crop Year: 2006		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2002			XX 749
2003			XX 1338
2004			XX 660
2005			XX 1437
Approved APH Yield			628

NOTE: XX, YY, YZ & ZZ are used throughout the examples provided in Exhibit 4; however, these are not authentic yield indicator codes. Please refer to Appendix III for more information.

Transition Examples (Continued)

Examples (c) – (e) illustrate a Transitional APH database that contains transitional organic yield history. The actual yields include total production and number of acres. The transitional organic actual yields will replace the reduced conventional yields as they are accumulated in the APH database.

- (a) One year of actual transitional yields in the APH database and three reduced conventional yields.

(c) Transitional APH Database			
Crop Year: 2007		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2003			XX 1338
2004			XX 660
2005			XX 1437
2006	90500	125	G 724
Approved APH Yield			1456

- (b) Two years of actual transitional yields in the APH database and two reduced conventional yields.

(d) Transitional APH Database			
Crop Year: 2008		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2004			XX 660
2005			XX 1437
2006	90500	125	G 724
2007	153250	125	G 1226
Approved APH Yield			1012

- (c) Three years of actual transitional yields in the APH database and one reduced conventional yield. At this point, the transition period (thirty-six months) as required by the OFPA and NOP standard is complete. The acreage, for the 2009 crop year, may be insured as certified organic.

(e) Transitional APH Database			
Crop Year: 2009		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2005			XX 1437
2006	90500	125	G 724
2007	153250	125	G 1226
2008	86125	125	G 689
Approved APH Yield			1427

Transition Examples (Continued)

- (2) Certified Organic APH database examples illustrate the maintenance of the Certified Organic APH database.

Scenario.

After the transition period has been complete, the certified organic APH database is established.

- (a) Initial year of the Certified Organic APH database. Is comprised of the most recent four yields from the transitional APH database.

(a) Certified Organic APH Database			
Crop Year: 2009		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2005			XX 1437
2006			G 724
2007			G 1226
2008			G 689
Approved APH Yield			1427

Do not add total production and acre data from the Transitional APH database to the Certified Organic APH. Use only the yields.

- (b) One certified organic yield and three actual yields from the Transitional APH database.

(b) Certified Organic APH Database			
Crop Year: 2010		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2006			G 724
2007			G 1226
2008			G 689
2009	249000	125	V 1992
Approved APH Yield			695

Transition Examples (Continued)

- (a) Two years of Certified Organic actual yields and two actual yields from the Transitional APH database.

(c) Certified Organic APH Database			
Crop Year: 2011		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2007			G 1226
2008			G 689
2009	249000	125	V 1992
2010	109750	125	V 878
	Approved APH Yield		1675

- (b) Three years of Certified Organic yields and one actual yield from the Transitional APH database.

(d) Certified Organic APH Database			
Crop Year: 2012		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2008			G 689
2009	249000	125	V 1992
2010	109750	125	V 878
2011	205875	125	V 1647
	Approved APH Yield		1302

Transition Examples (Continued)

Examples of Transitioning without an Organic Plan

- (1) Transitioning Acreage to Certified Organic without an organic plan or written documentation from a certifying agency.

Scenario.

For the 2006 crop year, an insured begins transitioning conventional acreage using organic practices without an organic plan or written documentation from a certifying agency; therefore:

- (a) The acreage must be insured under the conventional farming practice.

The database below illustrates the Conventional APH database prior to transitioning the acreage.

(a) Conventional APH Database			
Crop Year: 2006		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
1996	11875	125	A 953
1997	183625	125	A 1469
1998	89750	125	A 718
1999	168125	125	A 1345
2000	125125	125	A 1001
2001	151250	125	A 1210
2002	117000	125	A 936
2003	209000	125	A 1672
2004	103125	125	A 825
2005	224500	125	A 1796
	Approved APH Yield		716

Transition Examples (Continued)

- (b) If the conventional acreage had been transitioned according to a plan, then a separate Transitional APH database would have been established. However, as a result of the insured choosing to transition without a plan, a separate database is not established and the AIP must reduce the approved yield to account for the change in practice as specified in this handbook. The resulting initial year database is the following:

(b) Conventional APH Database			
Crop Year: 2006		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
1996	11875	125	A 953
1997	183625	125	A 1469
1998	89750	125	A 718
1999	168125	125	A 1345
2000	125125	125	A 1001
2001	151250	125	A 1210
2002	117000	125	A 936
2003	209000	125	A 1672
2004	103125	125	A 825
2005	224500	125	A 1796
	Variability Index Adjusted Yield		716
	Approved APH Yield		573*

*The approved yield must be reported with code/limitation YY.

Transition Examples (Continued)

- (c) The example below illustrates the actual transitional yields the insured accumulated while transitioning the conventional acreage without an organic plan or other documentation from a certifying agency.

(c) Conventional APH Database			
Crop Year: 2009		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
1999	168125	125	A 1345
2000	125125	125	A 1001
2001	151250	125	A 1210
2002	117000	125	A 936
2003	209000	125	A 1672
2004	103125	125	A 825
2005	224500	125	A 1796
2006	90500	125	A 724
2007	153250	125	A 1226
2008	86125	125	A 689
	Variability Index Adjusted Yield		1599
	Approved APH Yield		1279

Transition Examples (Continued)

(2) Establish a Certified Organic APH database ONLY when the insured has an organic plan and certificate from a certifying agency. In this situation, the insured has completed the transitional period for organic acreage and has provided an organic plan and certificate. Since the acreage was transitioned without a plan, any applicable actual yield(s) from the transitional acreage must be considered when determining the certified organic approved APH yield.

(a) Initial year of the Certified Organic APH database. Is comprised of the three actual transitional acreage yields and one reduced conventional yield from the conventional APH database.

(a) Certified Organic APH Database			
Crop Year: 2009		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2005			XX 1437
2006			ZZ 724
2007			ZZ 1226
2008			ZZ 689
Approved APH Yield			1427

(b) One actual Certified Organic yield and three yields from the transitional period.

(b) Certified Organic APH Database			
Crop Year: 2010		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2006			ZZ 724
2007			ZZ 1226
2008			ZZ 689
2009	249000	125	V 1992
Approved APH Yield			695

Transition Examples (Continued)

Example for Acreage that Converts back to Conventional from Certified Organic practice Scenario.

When Certified Organic acreage converts back to the Conventional practice due to drift, revocation of the certificate, etc., the conventional database must be established using the most recent four years of yields from the Certified Organic APH database.

- (a) The database below illustrates the Certified Organic APH database prior to converting back to Conventional

(a) Certified Organic APH Database			
Crop Year: 2012		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2006	249000	125	V 1992
2007	109750	125	V 878
2008	205875	125	V 1647
2009	79000	125	V 632
2010	187500	125	V 1500
2011	74500	125	V 596
Approved APH Yield			1691

- (b) Establish the Conventional database using the most recent four years from the Certified Organic APH database.

(b) Conventional APH Database			
Crop Year: 2012		Unit No. 0001-0000	
Year	Total Prod	Acres	Yield
2008			YZ 1647
2009			YZ 632
2010			YZ 1500
2011			YZ 596
Approved APH Yield			1531