



Federal Crop  
Insurance  
Corporation



Risk Management  
Agency



Product  
Administration  
and Standards  
Division

FCIC- 18140 (08-2009)

# VEGETATION INDEX

# INSURANCE STANDARDS HANDBOOK

**2010 and Succeeding Crop Years**

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

<b>FEDERAL CROP INSURANCE HANDBOOK</b>		<b>NUMBER: 18140 (08-2009)</b>	
<b>SUBJECT:</b>  <b>VEGETATION INDEX INSURANCE STANDARDS HANDBOOK 2010 AND SUCCEEDING CROP YEARS</b>		<b>OPI: Product Administration and Standards Division</b>	
		<b>APPROVED:</b>  /s/ Tim B. Witt <b>Deputy Administrator, Product Management</b>	<b>DATE:</b>  August 28, 2009

**THIS HANDBOOK CONTAINS THE OFFICIAL FCIC-APPROVED UNDERWRITING, ADMINISTRATION, AND LOSS ADJUSTMENT STANDARDS FOR THE VEGETATION INDEX CROPS, FOR THE 2010 AND SUCCEEDING CROP YEARS. ALL APPROVED INSURANCE PROVIDERS (AIPs) MUST UTILIZE THESE STANDARDS.**

**SUMMARY OF CHANGES**

The following list contains significant changes to this handbook, as determined by us. It may not represent all changes made. All changes made to this handbook are applicable regardless of whether or not listed.

Major Changes: See changes or additions in text which have been highlighted. Where entire Exhibits have been added, the title only is highlighted.

**Changes for crop year 2010 (FCIC-18140) issued August 2009:**

- A. References to NAP programs have been removed from the handbook
- B. The term “Productivity Factor” has been replaced with “Protection Factor” throughout the handbook.
- C. With changes in the policy provisions, Sales Closing Date, and Acreage Reporting Date occur on different dates, the handbook has been changed to reflect these changes.
- D. Exhibit 4, “Determining Grid ID(s) and Use of the Website”: Modified Exhibit 4 to reflect the changes to the websites and policy language and terms.

- E. Exhibit 5, “Vegetation Index – Pasture, Rangeland, Forage Example”: Modified Exhibit 5 to reflect the changes in policy language and terms.
- F. Appendix C, “FSA Decisions on NAP and Other Programs” was removed from the handbook.

**VEGETATION INDEX  
INSURANCE STANDARDS HANDBOOK**

**SUMMARY OF CHANGES/CONTROL CHART (Continued)**

<b>Control Chart For: Vegetation Index Insurance Standards Handbook</b>						
	<b>SC Page(s)</b>	<b>TC Page(s)</b>	<b>Text Page(s)</b>	<b>Reference Material</b>	<b>Date</b>	<b>Directive Number</b>
<b>Remove</b>	ENTIRE HANDBOOK DATED 10-2008					
<b>Current Index</b>	1-2	1-3	1-18	19-55	08-2009	FCIC 18140

**VEGETATION INDEX  
INSURANCE STANDARDS HANDBOOK**

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# 1. INTRODUCTION

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This handbook identifies the crop-specific procedural requirements for servicing the Vegetation Index (VI) Plans of Insurance in a uniform and timely manner.

- A. The VI Plan of Insurance is designed as a risk management tool to insure against a decline in an index in a designated area called a grid, and it is primarily intended for use by those producers whose crop production tends to follow the average vegetation index patterns for the grid. It is possible for the insured to have low crop production on the acreage that is insured and still not receive a payment under this plan. Because the program is designed for those producers whose crop production tends to follow the average vegetation index patterns for the grid and not individual crop production, the insured should review the historical indices, additional tools, and information provided on the RMA Web site to determine if the program is suitable for their risk management needs.
- B. A VI policy provides coverage from a reduction in the index.
- C. This handbook and the applicable appendices, along with the VI Basic Provisions, applicable Crop Provisions and Special Provisions, provides needed information. Because of the broad scope of information covered by this handbook, references are made to other handbooks, procedures, or policies as appropriate.
- D. This handbook contains exhibits and appendices with additional information for the VI plan of insurance. The appendices contain crop specific information and standards, and other information. The exhibits and appendices include:
  - (1) **Exhibit 1: VI Worksheet**
  - (2) **Exhibit 2: VI Policy Disclaimer**
  - (3) **Exhibit 3: Acreage Certification**
  - (4) **Exhibit 4: Determining Grid ID(S) and Use of the Website**
  - (5) **Exhibit 5: Vegetation Index – Pasture, Rangeland, Forage Example**
  - (6) **Appendix A: Pasture, Rangeland, Forage specific standards**
  - (7) **Appendix B: Apiculture specific standards**

# 2. SPECIAL INSTRUCTIONS

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This handbook remains in effect until superseded by re-issuance of either the entire handbook or selected portions (through slipsheets or bulletins). If slipsheets have been issued for a handbook, the original handbook as amended by slipsheet pages shall constitute the handbook. A bulletin can supersede either the original handbook or subsequent slipsheets.



## **A. DISTRIBUTION**

The following is the minimum distribution of policy forms:

- (1) One legible copy to the insured.
- (2) The original and all remaining copies as instructed by the AIP.

It is the AIP's responsibility to maintain original insurance documents relative to policyholder servicing as designated in their approved plan of operations.

## **B. TERMS, ABBREVIATIONS, AND DEFINITIONS**

- (1) Terms, abbreviations, and definitions that are general (not crop specific) are identified in the CIH and LAM.
- (2) For ease in the administration of the terms of the VI-API policy and to avoid the duplication of documents, as used throughout the VI Basic Provisions and applicable handbooks and directives, the term "acre" is replaced by "colony;" "acres" and "acreage" are replaced by "colonies;" "acreage report" is replaced by "colony report;" and "acreage reporting date" is replaced by "colony reporting date" (i.e., Report of Acreage = Report of Colonies, acreage reporting date = colony reporting date, insured acres or acreage = insured colonies, etc.).
- (3) Terms, abbreviations, and definitions specific to VI policies and this handbook, which are not defined in the VI Basic Provisions, applicable Crop Provisions, or Special Provisions, are defined as they appear in the text.
- (4) Abbreviations:

**AIP** – Approved Insurance Provider

**APH** - Actual Production History

**API** – Apiculture

**CAT** - Catastrophic Risk Protection

**CIH** – Crop Insurance Handbook

**CP** – Crop Provisions

**DSSH** – Document Standards and Supplemental Handbook – FCIC Handbook  
24040

**EROS** - Earth Resources Observation System

**FCIC** - Federal Crop Insurance Corporation

**LAM** - Loss Adjustment Manual

**MPCI** - Multiple Peril Crop Insurance

**NAP** – Noninsured Crop Disaster Assistance Program

**NDVI** - Normalized Difference Vegetation Index

**NOAA** - National Oceanographic and Atmospheric Administration

**PRF** – Pasture, Rangeland, Forage

**RMA** - Risk Management Agency  
**SPOI** - Special Provisions of Insurance  
**SRA** – Standard Reinsurance Agreement  
**VI** – Vegetation Index

For additional crop specific requirements, terms, conditions, and definitions, refer to the Appendices.

### **3. INSURANCE CONTRACT INFORMATION**

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#### **A. GENERAL INFORMATION**

VI plan of insurance coverage is based on the experience of the grid rather than individual farms. It indemnifies the insured in the event the "final grid index" falls below the insured's "trigger grid index". Requirements are contained in the VI Basic Provisions, and the applicable Crop Provisions.

#### **B. ELIGIBILITY**

A VI policy may be issued to a landlord and/or tenant, as well as an owner/operator, when the requirements of the VI Basic Provisions, Crop Provisions and Special Provisions and this handbook are met.

#### **C. INSURABILITY**

The crops, types, index intervals, and practices insured under this plan are those meeting the requirements of the VI Basic Provisions, and applicable Crop Provisions and Special Provisions. The AIP must determine that the insured has complied with all policy provisions of the insurance contract. VI policy provisions which are to be considered in this determination include but are not limited to:

- (1) Application - The insured must submit to the AIP an application for each crop insured under the VI plan of insurance, in accordance with the DSSH, including the Privacy Act and Nondiscrimination Statement, no later than the sales closing date specified in the Special Provisions.
- (2) An acreage report must be filed annually with the AIP for each crop. The report must be on the AIP's form adhering to form standards contained in the DSSH and filed each year by the acreage reporting date specified in the Special Provisions.
- (3) VI policies are available ONLY in the states, counties, and grids listed in the county actuarial documents for the applicable crops.

- (4) VI policies are continuous contracts unless canceled in writing by either the insured or the AIP by the cancellation date. Insureds requesting cancellation of a VI policy and/or transfer to another AIP must do so in writing by the dates specified in the VI Basic Provisions and applicable Crop Provisions.
- (5) More than one VI policy offer (type as listed for the crop in the actuarial documents for the county) may be available in a county for a crop. If more than one offer is available in a county, the insured must insure ALL of his/her acreage (unless specified in the applicable Crop Provisions) under the respective type. However, if the applicant has two separate offers they can insure one offer under the VI policy and not the other offer, if allowed by the applicable Crop Provisions.

If the applicant chooses to insure the offer under the VI policy, they cannot insure the same crop, type, and practice (as applicable) under any other FCIC subsidized program (except as noted in section 3C(6)(b) of this handbook, the applicable Crop Provisions, or the applicable Special Provisions) or obtain payment under certain other programs administered by the USDA, such as, but not limited to the Conservation Reserve Program. Refer to the VI Basic Provisions, applicable Crop Provisions, and Special Provisions for additional information.

If the acreage meets the requirements of different offers, the same acreage cannot be insured (during the same crop year) under the different offers. The insured must choose one offer under which to report and insure the acreage.

For additional crop specific requirements, refer to the Appendices.

- (6) VI coverage consists of the following requirements:
  - (a) Coverage is to be provided in accordance with the terms of the VI Basic Provisions, applicable Crop Provisions and Special Provisions.
  - (b) Unless otherwise specifically allowed by the applicable Crop Provisions or Special Provisions, an insured producer CANNOT insure the same crop, type, and practice in the same crop year through any other federally subsidized crop insurance program in counties where they carry VI coverage. However, VI policyholders may insure the same crop, type, and practice in the same county and crop year under an Adjusted Gross Revenue (AGR) or AGR-Lite policy. If more than one policy has been written that covers the insured's share of the crop, type, and practice, (except for AGR or AGR-Lite) the policy with the earliest application date will be in effect. All later policies will be void. Penalties may be applicable, as specified, in the provisions of 7 CFR Section 407.2.
  - (c) Review the applicable Crop Provisions, for verification of whether CAT coverage is available.

- (d) Protection is limited to the county base value per acre specified in the county actuarial documents for each crop, type, and practice (as applicable) multiplied by the maximum **protection** factor, the maximum coverage level, and the insured share.
- (e) The insured may select **only one** coverage level and **protection** factor for each insured crop, type, and practice combination as applicable in the Crop Provisions. The resulting dollar amount of protection per acre will be applied to each grid ID and the applicable crop, type, and practice.
- (f) The insured must report and certify, by the acreage reporting date, **ALL** insurable, and insured acres of the crop, type, index interval, and practice in the county in which the insured has an interest, as specified in section 8 of the VI Basic Provisions, and applicable Crop Provisions.

The Acreage Certification can be completed by the insured on the acreage report in the remarks section, or by reviewing and signing Exhibit 3 of this handbook. The insured must certify in writing the requirements specified in section 8 of the VI Basic Provisions and applicable Crop Provisions.

- (g) For the VI, indemnity payments are calculated independently on a unit basis and do not offset any other unit results.
- (7) Acreage altered or removed as criteria for participation in any other government program is not insurable. A revised acreage report must be submitted removing the acreage, if such acreage was previously reported as insurable.
- (8) Acreage on which the insured has failed to follow good farming/ranching practices as defined in the VI Basic Provisions or applicable Crop Provisions for the insured crop will not be insured.
- (9) **ALL** applicants are required to sign a disclaimer form at the time of application. Refer to the disclaimer form in Exhibit 2 of this handbook.
- (10) The following coverage does NOT apply to VI coverage:
  - (a) Hail and fire exclusion provisions;
  - (b) High-risk land exclusion provisions;
  - (c) Late planting provisions;
  - (d) Replant requirements;
  - (e) Replanting payment provisions;
  - (f) Prevented planting provisions;
  - (g) Experience adjustment factors; or
  - (h) Optional units.

## **D. COVERAGE AVAILABLE**

- (1) VI coverage is expressed as a dollar amount of protection. The dollar amount of protection per acre will be the county base value per acre specified in the county actuarial documents for each crop, type, and practice (as applicable) multiplied by the coverage level and the **protection** factor selected by the insured. The insured will have only one dollar amount of protection per acre for each county, crop, type, and practice as allowed by the applicable Crop Provisions.
- (2) The expected grid index multiplied by the selected coverage level (contained in the actuarial documents or VI Reports) equals the insured's "trigger grid index" (expected grid index  $\times$  coverage level (%) = trigger grid index).
- (3) The expected grid index is established from the mean accumulated vegetation index, calculated using NDVI values by index interval corrected for temperature, normalized and expressed as a percentage, such that the mean is 100.
- (4) Premium rates are stated in dollars per one-hundred dollars of protection.
- (5) The VI worksheet (Exhibit 1) may be copied for use as a resource in explaining the VI plan of insurance.

## **E. YIELD HISTORY AND PRODUCTION RECORDS**

- (1) Yield history and production records are not utilized in determining guarantees, losses, premiums, or indemnities. However, yield history and production records may be required for selected crops insured under the VI plan of insurance. Refer to the applicable Crop Provisions and appendices contained in this handbook.
- (2) For policies that do not require yield history and production records, insureds are encouraged to maintain any individual crop production and acreage history for use, or possible future use, in a plan of insurance that uses APH yields for the same crop, e.g., APH Forage Production.
- (3) If a VI insured returns to a different plan of insurance that uses APH yields for the same crop, types, and practices, their APH yield history database will be updated **ONLY** if continuous crop production records are available. APH procedures will apply and can be referenced in the CIH.

## **F. ROUNDING RULES**

- (1) Acres to value:
  - a. PRF to tenths (XX.X); and
  - b. API colonies to whole numbers (XX);
- (2) Share and factors to thousandths (X.XXX);

- (3) Dollars to dollars and cents (X.XX);
- (4) Index Values to tenths (XXX.X); and
- (5) Payment calculation factor to thousandths (X.XXX).

## **G. PAYMENT CALCULATIONS**

- (1) As previously detailed in Section 3D(3), the expected grid index is 100.
- (2) The final grid index for each grid is determined by FCIC based on current NDVI values corrected for temperature for each grid during the crop year, expressed as a percentage. As noted in the VI Basic Provisions, the insured may receive an indemnity payment if the final grid index falls below the insured's trigger grid index. The payment is equal to the payment calculation factor multiplied by the policy protection per unit, as specified in the Crop Provisions. Refer to the applicable Crop Provisions or Exhibit 5 of this handbook for a detailed example of payment calculations.

The only insurable cause of loss is when the final grid index is less than the trigger grid index. However, reduction in the final grid index due to a cause other than a natural occurrence will result in a final grid index in an amount based on the reduction due to natural occurrences only. Losses due to fire or other causes will be determined in the following manner:

- a) If the cause is determined by FCIC to be a natural disaster, and the final grid index value is less than the trigger grid index, the insured in the effected grid may receive indemnity payments as outlined in the policy; however,
  - b) If the cause is determined by FCIC to be an act of man or intentional, a method of assigning the Vegetation index value from the nearest unaffected grid will be utilized to establish a final grid index value for the grid (s) affected. Refer to Section 5A(1)
- (3) Any unpaid amounts due the AIP, arising from a VI policy, or any other policy authorized under the Act, may be deducted from any indemnity payments due to the insured. Refer to the applicable Special Provisions for the appropriate billing dates.

## **H. ADMINISTRATIVE FEE & PREMIUM DETERMINATION**

- (1) In addition to the premium charged:
  - (a) For catastrophic or additional coverage, as applicable, you must pay an administrative fee for each crop year for each crop in the amount specified in the Special Provisions.

- (b) The administrative fee must be paid as specified in the VI Basic Provisions.

Administrative fees may be waived for limited resource farmers.

- (2) The annual premium is determined by applying the premium rate for each applicable county, grid ID, crop, type, index interval, practice, and coverage level selected based on the applicable Crop Provisions, Special Provisions or actuarial documents, including any actuarial data reporting tools available on the RMA web site. Premium = (dollar amount of protection per acre  $\times$  premium rate  $\times$  number of acres  $\times$  0.01  $\times$  share), for each unit. Total policy premium will equal the sum of all the premiums calculated for each unit. Refer to the applicable Crop Provisions for a detailed example of premium calculations. The premium cannot be less than zero.
- (3) The AIP will bill the insured for the total premium and administration fees, less the applicable subsidy. Premium and administrative fees shall be due and payable 30 days after the billing date specified in the applicable Special Provisions.
- (4) The insured may change the selected coverage level or **protection** factor for subsequent years and notify the AIP in writing by the sales closing date for the applicable crop year.

## 4. UNDERWRITING

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Policy documents for the VI plan of insurance contract consist of the following:

- Application;
- VI Basic Provisions;
- Applicable Crop Provisions; and
- Applicable Special Provisions.

### A. FORMS AND PROCEDURES

The following forms are used to administer the VI plan of insurance and must adhere to the standards contained in the DSSH, unless otherwise specified in this handbook, including additional information requirements.

- (1) **Special Report:** For required or additional information;
- (2) **Application:** Refer to B and C of this section;
- (3) **Contract Changes Form;**

- (4) **Disclaimer:** Refer to the VI Policy Disclaimer, Exhibit 2 of this handbook;
- (5) **Policy Confirmation;**
- (6) **Acreage Report:** Refer to D and E of this section for acreage report requirements, and F, G, and H of this section for review requirements;
- (7) **Summary of Coverage:** Refer to I of this section;
- (8) **Assignment of Indemnity:** Refer to the DSSH and CIH;
- (9) **Transfer of Right to an Indemnity:** Refer to the DSSH and CIH;
- (10) **Applicable Actuarial Documents (including any actuarial data reporting tools available on the RMA web site) and Special Provisions:** The actuarial documents, including actuarial data reporting tools and Special Provisions contain county actuarial data that includes the following specific information: expected grid(s) index; county base value; types, practices, index intervals; coverage levels/trigger grid index; unsubsidized rates; and subsidy rates;
- (11) **Power of Attorney:** Refer to the DSSH and CIH;
- (12) **Notice of Indemnity Payment:** Refer to Section 5 for indemnity payment form requirements and notice of indemnity payment requirements;
- (13) **Acreage Certification:** Refer to the Acreage Certification, Exhibit 3 of this handbook; and
- (14) **VI Worksheet:** Refer to Exhibit 1 of this handbook for the worksheet and instructions.

## **B. GENERAL APPLICATION REQUIREMENTS**

- (1) **Sales Closing Dates:** Listed in the applicable Crop Provisions and Special Provisions.

Insured producers switching insurance coverage from another FCIC plan to a VI policy must provide a written cancellation for the other policy by the other policy's cancellation date. A new application for insurance must be signed by the VI policy sales closing date. If the other policy for the same crop that will be insured under a VI policy is not canceled, the other coverage will remain in effect and the VI policy coverage will be void. Refer to the VI Basic Provisions, applicable Crop Provisions, and CIH for additional information.

- (2) **Late-Filed Applications:** Accepted ONLY when there is documented evidence that the RMA Web site was unavailable on the sales closing date and the insured was unable to properly identify their grid, grid ID, or other requirements, as



applicable. Coverage will attach, provided they signed an **application by the sales closing date** and provide an **acreage** report with information as specified under section 8 of the VI Basic Provisions by the **acreage reporting** date. Upon the availability of the RMA Web site, the insured must select their grid ID, or other requirements as applicable and provide their completed report of acreage confirming all their insurable and insured acres, as outlined under section 8 of the VI Basis Provisions and the Report of Acreage section of the Crop Provisions, within 2 business days after the Web site becomes available.

- (3) **Levels of Coverage:** 65 (CAT coverage, if available) 70, 75, 80, 85, or 90 percent. For VI policies, the insured may select any percentage of coverage shown on the applicable actuarial documents, including any actuarial data reporting tools available on the RMA web site for each crop and type. Refer to the applicable Crop Provisions, Special Provisions and VI Basic Provisions.
- (4) **Eligible Counties:** Listed in the applicable Special Provisions. Multiple counties may be insured. County for the VI plan of insurance, as defined in the VI Basic Provisions, is also defined to include any acreage of the crop, type, and practice contained within a grid ID that crosses an adjoining county line where the acreage is contiguous. Refer to the VI Basic Provisions or applicable Crop Provision for the full definition.

For additional API requirements, refer to Appendix B.

- (5) **Eligible Grids:** Listed in the actuarial documents. Multiple county grids may be insured. The applicant will determine a point of reference identifying the insured acres and the corresponding grid ID by the **acreage reporting** date for all insured acres. Points of reference must be determined using the maps contained on RMA's Web site. Refer to Exhibits 4 and 5 for detailed instructions on determining the correct Point of Reference and Grid ID(s).
  - (a) A separate point of reference must be established for each crop, type, and practice in a grid as specified in the Applicable Crop Provisions, as follows:
    - 1. In the case of contiguous insured acreage that cross grids or county lines, a point of reference must be selected as follows:
      - i) If the insured chooses to combine the contiguous acreages of the crop, type, and practice (as applicable) into one single grid ID or county, a single point of reference must be established for all of the contiguous acreage; or
      - ii) If the insured chooses to separate the contiguous acreage of the crop, type, and practice (as applicable) into separate grid IDs or counties, they must establish the single point of reference for each grid ID or county. For example: If the contiguous acreage

is located in four grids and they choose to insure the acreage in separate grids, the acreage can be separated into two, three, or four grids. If they select three grids, they must establish the points of reference, and report on the acreage report the grid ID, and the amount of insured acres located, or assigned as applicable, to each grid ID.

- (6) **Insurable acres:** Only VI insurable acres as specified in the applicable Crop Provisions, are insurable at the time of filing the acreage report. Insurable acres must be reported by county. Refer to the VI Basic Provisions, applicable Crop Provisions, and Special Provisions.
- (7) **Insured acres:** The VI insured acres must equal all of the insured's insurable acres, unless otherwise specified in the applicable Crop Provisions. The amount of insured acres in the county will not exceed 100 percent of the insured's insurable acres of the crop in the county.
  - (a) For each grid, the insured must report the following, as applicable:
    1. Insured acres;
    2. Share;
    3. Index Interval
    4. Practice;
    5. Type;
    6. Grid ID; and,
    7. Information required to reconcile with other USDA agencies will be required. This includes FSA farm serial number, FSA tract number, and FSA field number. If you cannot obtain a FSA farm serial number, FSA tract number and FSA field number, you must provide supporting documentation from FSA, a legal description, and latitude and longitude of all the non-contiguous acreage insured.
  - (b) The same acres cannot be insured in more than one grid ID or county (except as noted in section 3C(6)(b) of this handbook).
  - (c) The insured must certify on the acreage report, refer to Exhibit 3, Acreage Certification, of this handbook, that the:
    1. Point of reference used for each grid ID is identifying the insured acres covered under the VI Basic Provisions and applicable Crop Provisions subject to section 8(f) of VI Basic Provisions; and
    2. Acreage assigned to each grid ID is accurate to the best of their knowledge, subject to section 8 of the VI Basic Provisions.
  - (d) The grid ID for all insured acres will be included on the summary of coverage.

- (e) Acreage associated with a grid ID in a county will be subject to the applicable actuarial documents. The county name(s) or county code(s) and grid number(s) must be shown on the application.

For additional crop specific requirements, refer to the Appendices.

- (8) **Dollar Amount of Protection per Acre:** The county base value per acre specified in the actuarial documents for each crop, type, and practice (as applicable) is multiplied by the selected coverage level, and multiplied by the selected **protection** factor (60% - 150%). The applicant will have only one dollar amount of protection per acre for each county, crop, type, and practice, as specified in the applicable Crop Provisions.
- (9) **Policy Protection:** The maximum dollar amount the insured is eligible to receive, equal to the sum of all the insured's policy protection per unit.
- (10) **A Mandatory Disclaimer and Acreage Certification Form:** The agent and applicant must complete, sign, and date a disclaimer **form when the VI insurance application is signed by the Sales Closing Date. The agent and applicant then must complete, sign, and date an acreage certification by the acreage reporting date.** Refer to Exhibit 2 and Exhibit 3 of this handbook.

### **C. APPLICATION FORM REQUIREMENTS**

In addition to the requirements found in the DSSH, the VI application must contain:

- (1) **Dollar Amount of Protection per Acre;**
- (2) **Grid ID;**
- (3) **Practice:** Three-digit code if shown on the applicable Special Provisions; and.
- (4) **Index Interval:** Three-digit code if shown on the applicable Special Provisions.

### **D. GENERAL ACREAGE REPORTING REQUIREMENTS**

- (1) AIPs must obtain an annual acreage report for each insured crop.
- (2) Acreage must be reported on forms meeting the standards contained in the DSSH. Any other crops insured under other FCIC plans of insurance must be reported separately.

- (3) Acreage report data must be timely and properly submitted by AIPs to FCIC as stated in the SRA.
- (4) Acreage reporting dates are stated in the applicable Special Provisions. If the acreage reporting date falls on a Saturday, Sunday, or legal holiday, the acreage reporting date will be extended to the next business day as provided in the VI Basic Provisions.
- (5) Late-filed acreage reports, initially received at the agent's office after the specified acreage reporting date will be accepted or rejected in accordance with section 8 of the VI Basic Provisions.
- (6) Before the published acreage reporting date, corrected or revised acreage reports may be taken for any reason.
- (7) After the published acreage reporting date, a CORRECTED acreage report may be completed at the AIP's discretion and identified as "Corrected" if the correction affects the Summary of Coverage. Corrections are allowed only when there is an error, such as but not limited to: the information on the acreage report is clearly transposed (e.g., 87.0 written as 78.0).
- (8) After the published acreage reporting date, a REVISED acreage report must meet the criteria specified in section 8 of the VI Basic Provisions.
- (9) For a VI policy, it is the responsibility of the insured to report and certify the insurable and insured acres, as specified in the VI Basic Provisions, applicable Crop Provisions, and section 4B(6) and (7) of this handbook.

For additional API requirements refer to Appendix B.

## **E. ACREAGE REPORT FORM REQUIREMENTS**

In addition to the requirements found in the DSSH, acreage reports must also contain:

- (1) **Insurable Acres;**
- (2) **Insured Acres;**
- (3) **Insured Share:** The insured's share expressed as a 3 place decimal. Differing VI insured shares, for the crop, type, and practice, as specified in the applicable Crop Provisions and Special Provisions, require separate acreage report line entries. ALL ACREAGE OF THE CROP WITH THE SAME SHARE, TYPE, GRID, INDEX INTERVAL, AND PRACTICE, REGARDLESS OF NAME OF OTHER PERSON(S) SHARING IN THE CROP, CAN BE ENTERED ON A SINGLE LINE OF THE REPORT.

For the reporting of share of the spouse and dependent children refer to the VI Basic Provisions;

- (4) **Grid ID;**
- (5) **Practice:** A practice code as listed in the applicable Special Provisions.
- (6) **Index Interval:** An index interval code as listed in the applicable Special Provisions.
- (7) **Unit Number:** Record as a five-digit number. There is no basic unit discount and optional units are not applicable;
- (8) **Protection Factor:** Record the percentage as a 2 place decimal format, e.g. 125% reported as 1.25; and
- (9) **FSA Farm serial number, FSA tract number, and FSA field number:** Numbers assigned by your local FSA office. If you cannot obtain a FSA farm serial number, FSA tract number, and FSA field number, you must provide supporting documentation from FSA, a legal description, and latitude and longitude of all the non-contiguous acreage insured. The latitude and longitude will be displayed when the Point of Reference is selected and this shall be used when applicable.

AIPs may utilize unused columns of their acreage report form to accommodate required entries.

For additional crop specific requirements, refer to the Appendices.

## **F. ACREAGE REPORT REVIEW SELECTION**

AIPs must perform acreage report reviews **no later than 120-days after the acreage reporting date** for the crop, as listed in the Special Provisions, or after **an adjustment** in acreage, as specified in section 8 of the VI Basic Provisions. Acreage report reviews are required for:

- (1) All policies of employees, representatives, adjusters, agents, etc., of either an AIP or the FCIC on which a claim has been paid in the last year;
- (2) All policies for which misrepresentation or concealment of material facts are suspected;
- (3) All policies for which a written application for **an acreage adjustment** was completed during the crop year; and
- (4) **Not less than** a three percent random sample of all VI policies with reported acreage. Where policies have been selected that have multiple VI crops, or other

area wide plans, the reviewer may verify the acreage report information for the other crops. Such verifications will apply toward the required reviews for that company for those crops, even though such reviews were not random.

## **G. ACREAGE REPORT REVIEW CRITERIA**

Acreage report reviews verify compliance with the policy provisions, including but not limited to the items as noted in section 4(I) of this handbook.

Actual field inspections are required when questions associated with compliance of policy provisions are noted as a result of the acreage review.

For additional crop specific requirements, refer to the Appendices.

## **H. ACREAGE REPORT REVIEW SUMMARY**

**Thirty days prior to the end date of the last index interval for the crop year**, as specified in the applicable Special Provisions, the AIP must submit a report (Type 57 record) of its completed VI acreage report reviews, for each crop. Policies are considered to be within tolerance if the premium and indemnity discrepancy is less than \$250. If the policy tolerance is exceeded, the report summary will identify all unit discrepancies discovered.

## **I. SUMMARY OF COVERAGE REQUIREMENTS**

In addition to the requirements found in the DSSH, the following will also be provided:

- (1) **Insurable Acres;**
- (2) **Insured Acres;**
- (3) **Insured's Share;**
- (4) **Grid ID;**
- (5) **FSA Farm Serial Number, FSA Tract Number, and FSA Field Number:** If this has not been obtained (as required in the Basic Provisions) the summary of coverage will designate "N/A" (Not Applicable). However the requirements as specified in the Basic Provisions and section 4(E)(8) must be followed.
- (6) **Practice;**
- (7) **Index Interval;**
- (8) **Trigger Grid Index;**

- (9) **Protection per Acre:** Gross (before share);
- (10) **Policy Protection per Unit:** Net (after share);
- (11) **Policy Protection:** Net (after share); and
- (12) **Premium:** Net (after share).

For additional crop specific requirements, refer to the Appendices.

## 5. INDEMNITY

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### A. GENERAL INDEMNITY PAYMENT FORM REQUIREMENTS

There are no field claim activities (e.g., loss adjustment) for VI policies. VI policies have the following general requirements:

- (1) Indemnity payments must be paid according to the VI Basic Provisions and applicable Crop Provisions, using the final grid index(es) released by FCIC and the insured's trigger grid index.
  - (a) However, losses must be due to natural causes. If the cause is determined to be an act of man or intentional (such as, but not limited to fire), it will result in a final grid index in an amount based on the reduction due to natural occurrences. A method of assigning the Vegetation index value by FCIC from the nearest unaffected grid will be utilized to establish a final grid index value for the grid(s) affected. The following procedure will be utilized by FCIC to determine affected and the nearest unaffected grid:
    - 1. The action must be determined to be an act of man. If natural causes, follow indemnity payments and forms as outlined in the policy;
    - 2. The area affected in the grid has to be greater than 5,000 acres. If less than 5,000 acres, follow indemnity payments and forms as outlined in the policy;
    - 3. FCIC will estimate the affected area before the release of the final grid index in the following manner:
      - i. The boundary of the action will be described by a **minimum of four** longitude and latitude readings representing the maximum dimensions, by FCIC designated personnel. For Example, in case of fire this will include the upwind, downwind and width points of the burned area.

- ii. These points can be determined using **the maps** on the geo-referenced web portal developed for the Vegetation Index insurance program to assign Grid ID's and determine Point of Reference.
  4. The longitude and latitude of the points, will be recorded.
  5. Upon submission of the points, a linear point-to-point scribed polygon will be computed which overlays the Vegetation Index grids and a list of "impacted" Grid ID's will be extracted.
  6. For each selected impacted grid, the program will search for the nearest Vegetation Grid ID not impacted by the action and will list those for each impacted Grid ID.
  7. Data from the alternative Grid ID will be utilized for the impacted Grid ID (s).
- (2) Indemnity payments shall be calculated separately for each unit, as defined in the applicable Crop Provisions.
  - (3) AIPs must make any indemnity payments **not later than 60 days** after receiving the VI final grid index from FCIC for the grid id.

## **B. NOTICE OF INDEMNITY PAYMENT REQUIREMENTS**

The AIP will acknowledge each indemnity payment with a "notice of indemnity payment" for each indemnified insured unit. This notice must contain AT LEAST the following:

- (1) **Insured's Name and Address:** Insured's complete name and address as shown on the application;
- (2) **AIP's Name;**
- (3) **Agent/Agency Name:** Servicing agent's or agency's complete name, address, and phone number;
- (4) **Contract/Policy Number:** Insured's assigned policy number;
- (5) **Crop:** Crop name as listed in the county actuarial documents;
- (6) **Crop Year:** Appropriate four-digit year, such as "YYYY," as defined in the policy;
- (7) **Insured's Share;**
- (8) **Coverage Level;**



- (9) **Type;**
- (10) **Grid ID;**
- (11) **FSA Farm Serial Number, FSA Tract Number, and FSA Field Number:** If this has not been obtained (as required in the Basic Provisions) the summary of coverage will designate “N/A” (Not Applicable). However the requirements as specified in the Basic Provisions and section 4(E)(8) must be followed.
- (12) **Practice, as applicable;**
- (13) **Index Interval, as applicable;**
- (14) **Unit Number;**
- (15) **Dollar Amount of Protection per Acre;**
- (16) **Final Grid Index;**
- (17) **Trigger Grid Index;**
- (18) **Indemnity:** Total VI policy indemnity payment, in whole dollars, for the insured crop in the county, for each unit;
- (19) **Final Payment:** Final indemnity payment in whole dollars for all VI policy crops, by unit. This entry is to reflect any reduction for any amount due the company; and
- (20) **Check Number and Date:** Actual check number with date of issue; e.g., MM/DD/YYYY.

For additional crop specific requirements, refer to the Appendices.



FOR ILLUSTRATION PURPOSES ONLY

**Exhibit 1: VI Worksheet**

1. Insured's Name: \_\_\_\_\_ 2. Date: \_\_\_/\_\_\_/\_\_\_ 3. State: \_\_\_\_\_ (\_\_\_) 4. County: \_\_\_\_\_ (\_\_\_)

5. Crop Type: \_\_\_\_\_ 6. Coverage Level/Trigger Index: \_\_\_\_\_ 7. Protection Factor: \_\_\_\_\_ %

8. \$ Amt. of Prot/Ac: \_\_\_\_\_ 9. Insurable acres in the County \_\_\_\_\_ 10. Total insurable colonies (United States) \_\_\_\_\_

11 Grid ID	12 Insured Acreage or Colonies	13 Share  <i>percentage</i>	14 (Practice) Index Interval	15 Unit Number	16 % Insured Acres or Colonies/ Unit	17 Insured Acres or Colonies/ Unit	18 Policy Protection/ Unit	19 Premium Rate/\$100	20 Premium/ Unit	21 Premium Subsidy/ Unit	22 Producer Pemium/U nit		
					<i>percentage</i>	<i>acres or colonies</i>	<i>dollars</i>	<i>dollars</i>	<i>dollars</i>	<i>dollars</i>	<i>dollars</i>		
			645										
			646										
			647										
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			650										
			651										
			652										
			653										
			654										
					<b>Total</b>								
<b>County Totals</b>	<b>12a.</b>				<b>17a.</b>	<b>18a.</b>		<b>20a.</b>	<b>21a.</b>	<b>22a.</b>			

Prepared by: \_\_\_\_\_ (Agent's Signature) Insured's Initials: \_\_\_\_\_

## VI Worksheet Completion Procedures

### A. GENERAL INFORMATION

- (1) The VI Worksheet is provided to assist the agent in determining the insured's policy protection and premium.
- (2) To assist the agent, a separate worksheet should be completed for each county, crop, and type insured, as applicable
- (3) For API policies, agents and insured will substitute "colonies" for "acres" as directed by the API Crop Provisions.

### B. WORKSHEET ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries:

<u>Item</u> <u>No.</u>	<u>Information Required</u>
---------------------------	-----------------------------

- |    |  |
|----|--|
| 1. | <b>Insured's Name:</b> Enter the name of the insured that identifies the person (legal entity) to whom the policy is issued. |
| 2. | <b>Date:</b> Enter the date the form was completed (MM/DD/YYYY).   |
| 3. | <b>State:</b> Enter the state in which insurance attaches and the corresponding 2-digit state code.                          |
| 4. | <b>County:</b> Enter the county in which insurance attaches and the corresponding 3-digit county code.                       |

Note: The VI Worksheet is provided for acreage in one county. For multiple counties, use separate worksheets.

- |    |   |
|----|---|
| 5. | <b>Type:</b> Enter the type if there are different types available (refer to the applicable Crop Provisions) for the crop. If the insured elects to insure more than one type, a separate worksheet should be completed for each type.  |
| 6. | <b>Coverage Level (or Trigger Grid Index):</b> Enter the selected coverage level [65 (CAT), 70, 75, 80, 85, or 90 percent] as specified in the applicable Crop Provisions. The level of coverage selected by the applicant will be applied to each unit (as defined by the applicable Crop Provisions). |

The coverage level and the trigger grid index are the same value. [For example: 75% (coverage level)  $\times$  100 (expected grid index) = 75 (trigger grid index)].

7. **Protection Factor:** Enter the selected **protection** factor (a percentage value between 60 and 150 percent, selected in one percent increments).
8. **Dollar Amount of Protection per Acre:** As specified in the VI Basic Provisions:  
  
Example: county base value x coverage level (#6) x **protection** factor (#7) [\$20.00 x 90% x 120% = \$21.60].
9. **Insurable Acres:** Enter the amount of Insurable acres in the county for the type, as applicable.
10. **Total insurable colonies (United States):** FOR API POLICIES ONLY, enter the TOTAL number of colonies in which you have a share in the United States.
11. **Grid ID (s):** Enter the specific grid number(s) corresponding to the insured acres in the specified county.
12. **Insured Acres:** Enter the number of insured acreage for each grid ID. Total the column numbers in 12a.
13. **Share:** Enter the applicable share, as a percentage, as applicable.
14. **Practice or Index Interval, as applicable:** Enter the code(s) associated with each index interval or practice, as applicable.
15. **Unit Number:** Assign a unit number for each crop, type, index interval, practice and share, as applicable for each grid ID.
16. **Percentage of Insured Acres per Unit (by Index Interval):** FOR PRF AND API POLICIES ONLY, The insured may designate a percentage of the insured acres to more than one index interval, as specified in the applicable Special Provisions. The sum of all the percentages (entered in the cell labeled “Total” and colored red) for each grid ID, and share must equal 100%.

**Note:** An insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one index interval. For example: If an insured selects April – June Index Interval, which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure acreage in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.

17. **Amount of Insured Acres per Unit (by Index Interval):** FOR PRF AND API POLICIES ONLY, for each index interval, Column 16 x Column 12 for the corresponding rows and item.

The total insured acres for each grid ID (entered in the cell labeled “Total”: and colored red) should equal the number in 12 for each grid. Also, total the column numbers in 17a, should equal the value in 12a.

18. **Policy Protection per Unit:** FOR PRF AND API POLICIES ONLY, the result of Item #8  $\times$  Column 17  $\times$  Column 13, for the corresponding row items.

**The Policy Protection** – record in 18a the sum of column 18.

19. **Premium Rate/ \$100 of Insurance:** Enter the premium rate for each grid ID, type, index interval, and practice, as applicable.

20. **Premium per Unit:** Column 17  $\times$  Column 19  $\times$  0.01 (adjustment factor)  $\times$  Column 13, for each corresponding row item.

**Total Policy Premium** – record in 20a the sum of column 20.

21. **Premium Subsidy per Unit:** Column 20  $\times$  the applicable subsidy percentage.

**Total Premium Subsidy** – record in 21a the sum of column 21.

22. **Producer Premium per Unit:** Column 20 minus Column 21, for each corresponding row item.

**Total Producer Premium** – record in 22a the sum of column 22.

## Exhibit 2: Vegetation Index Policy Disclaimer

### YOU NEED TO UNDERSTAND THE FOLLOWING:

- THE VEGETATION INDEX IS NOT A PLAN OF INSURANCE AGAINST INDIVIDUAL LOSS. THE TERMS AND CONDITIONS OF THIS PLAN ARE DIFFERENT FROM THOSE OF AN ACTUAL PRODUCTION HISTORY PLAN OF MULTIPLE PERIL CROP INSURANCE.
- FINAL PAYMENT WILL BE MADE ACCORDING TO THE APPLICABLE CROP PROVISIONS. PREMIUM WILL BE DUE 30 DAYS AFTER THE BILLING DATE SPECIFIED IN THE ACTUARIAL DOCUMENTS.
- THIS PLAN OF INSURANCE IS DESIGNED AS A RISK MANAGEMENT TOOL TO INSURE AGAINST A DECLINE IN AN INDEX FOR A DESIGNATED AREA CALLED A GRID, AND IT IS PRIMARILY INTENDED FOR USE BY THOSE PRODUCERS WHOSE CROP PRODUCTION AND VEGETATION INDEX TENDS TO FOLLOW THE AVERAGE VEGETATION INDEX PATTERNS FOR THE GRID. IT IS POSSIBLE FOR YOU TO HAVE LOW CROP PRODUCTION OR LOW NDVI VALUES ON THE ACREAGE THAT YOU INSURE AND STILL NOT RECEIVE A PAYMENT UNDER THIS PLAN. THIS PROGRAM IS BASED UPON GRID INDICES, NOT INDIVIDUAL FARM YIELDS. THE ONLY INSURABLE CAUSE OF LOSS UNDER THIS POLICY IS HAVING A FINAL GRID INDEX LESS THAN YOUR TRIGGER GRID INDEX. BECAUSE THE PROGRAM IS DESIGNED FOR THE PRODUCERS WHOSE CROP PRODUCTION AND VEGETATION INDEX TENDS TO FOLLOW THE AVERAGE VEGETATION INDEX PATTERNS FOR THE GRID **AND NOT INDIVIDUAL CROP PRODUCTION**, YOU SHOULD REVIEW THE HISTORICAL INDICES, ADDITIONAL TOOLS, AND INFORMATION PROVIDED ON THE RMA WEB SITE TO DETERMINE IF THE PROGRAM IS SUITABLE FOR YOUR RISK MANAGEMENT NEEDS.
- YOU SHOULD CONTINUE TO MAINTAIN ANY AND ALL OF YOUR PRODUCTION RECORDS IN THE EVENT YOU WISH TO PURCHASE AN ACTUAL PRODUCTION HISTORY PLAN OF MULTIPLE PERIL CROP INSURANCE IN FUTURE YEARS.

I understand the terms of the Common Vegetation Index Policy Basic Provisions and applicable Crop Provisions. I am aware that I cannot obtain another plan of insurance in a county, if available, on crops insured under the VI plan of insurance with the exception of AGR and AGR Lite (if available), or in accordance with the applicable Crop Provisions or Special Provisions. I am aware of the additional tools provided by RMA on their Web site related to the VI plans of insurance to assist me in determining if the VI plan of insurance is suitable for my farming operation. I have read and fully understand this Vegetation Index Disclaimer.

INSURED \_\_\_\_\_ AGENT \_\_\_\_\_

DATE \_\_\_\_\_ DATE \_\_\_\_\_

### Exhibit 3: Acreage Certification

#### PRF Producer Certification

I (INSURED) CERTIFY:

- The point of reference used for each grid ID is identifying my insured acres covered under the VI Basic Provisions and the applicable Crop Provisions; and
- That the acreage assigned to each grid ID is accurate to the best of my knowledge.

INSURED \_\_\_\_\_ AGENT \_\_\_\_\_

DATE \_\_\_\_\_ DATE \_\_\_\_\_

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#### API Producer Certification

I (INSURED) CERTIFY:

- The point of reference used for each grid ID is identifying the locations of my insured colonies covered under these Crop Provisions;
- That colonies assigned to each grid ID is accurate to the best of my knowledge;
- That the colonies qualify as apiculture; and
- The selected index intervals support the vegetation production necessary for the insured crop.

INSURED \_\_\_\_\_ AGENT \_\_\_\_\_

DATE \_\_\_\_\_ DATE \_\_\_\_\_



## **Exhibit 4: Determining Grid ID(s) and Use of the Website**

### **Introduction**

As stated in the Vegetation Index Common Policy provisions and applicable crop provisions, a Grid ID is a specific code associated with each grid, contained in the actuarial documents. A Grid ID is determined based on a point of reference selected by you, which must be established by the acreage reporting date. Because a grid is approximately 4.8 miles (8km) by 4.8 miles in size, RMA has provided a web-based tool accessible on RMA's website, <http://www.rma.usda.gov/> or a successor website, as a method to accurately identify the applicable Grid ID(s) for the insured's acreage. This Website is the official Website which will be used for any compliance related issues or final determinations that may be required.

The tool has been developed as an interactive website that a user can navigate through to various screens to collect information and establish a Grid ID. The tool will also allow a provider/agent to print any of the screens that appear on the site. It is recommended that when an insured selects a point of reference from the website, a printed copy (select the print option on the pages) of the screen with the map and corresponding point of reference (which contains state, county, grid, longitude, latitude, and other information related to location), should be placed in the file, for verification purposes. Additional details on these and other tools are provided in this Exhibit.

Because of the broad scope of information covered by this handbook, the information provided in this Exhibit provides additional clarification and requirements specific to the VI plan of insurance. The information provided in this Exhibit does not affect the construction or meaning of any of the policy provisions.

### **Locating the Website**

Locating and using the website can be completed at any location that has web access. The speed of the display on each screen is determined by each individual computer's speed and the internet connection capabilities. The tools available for the Vegetation Index are located at the Rainfall/Vegetation Indices gateway page, <http://www.rma.usda.gov/> or a successor website.

### **Navigating the Website**

The first and one of the most important steps is to accurately identify the Grid ID(s). A direct link to RMA's web-based tool is available on the specific crop page under the Rainfall/Vegetation Indices gateway page. This link will bring you to the default page for the map driven Grid ID locator for the Vegetation Index pilot programs for Pasture, Rangeland, Forage. The Apiculture Vegetation Index map driven Grid ID locator tool can be found on this same gateway page.

The following information provides additional details based on the design of the PRF websites. There are slight differences in the views between the PRF and API websites; however, the basic principles and steps remain the same.

An example of a default PRF Grid locator screen is displayed:

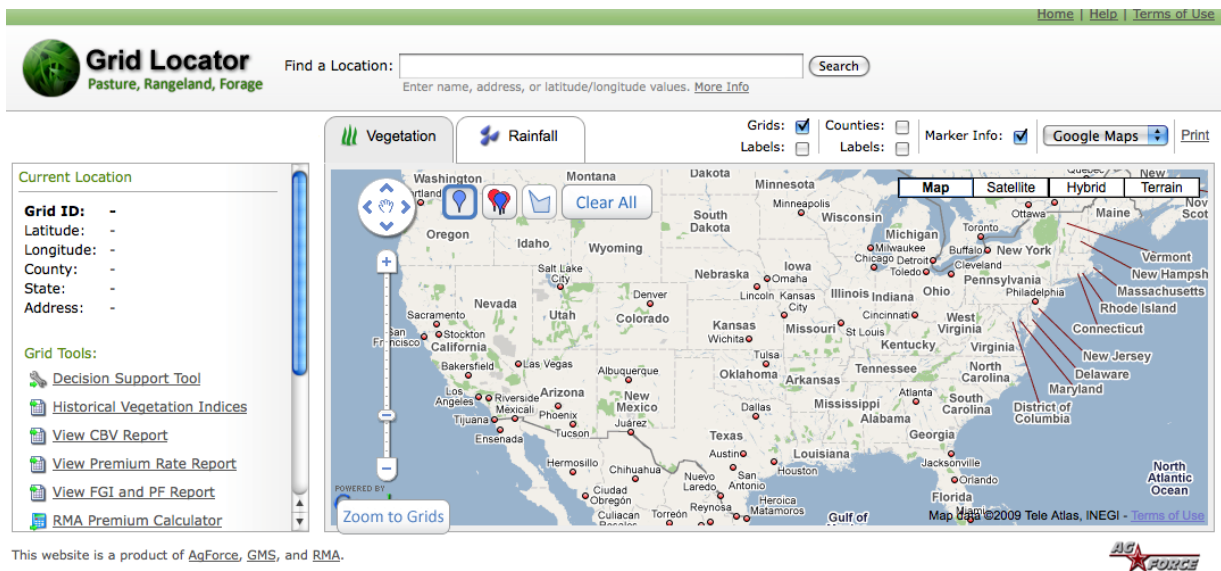


Figure 1. Establish Reference Point and Grid ID Default Page Map

### Description of the PRF Screen

The middle of the screen displays several map types and options. Figure 1 is the standard map but there is also the option to use a Satellite, Hybrid, or Terrain map. The map size can be changed by using the Zoom on the left hand side of the Map. For purposes of these directions, a small United States map is displayed. There is also the option to display Grid and County labels (Figure 2), as well as other location information by checking the selection desired. The left side of the webpage displays additional VI and crop specific links, which can be selected and utilized as desired.

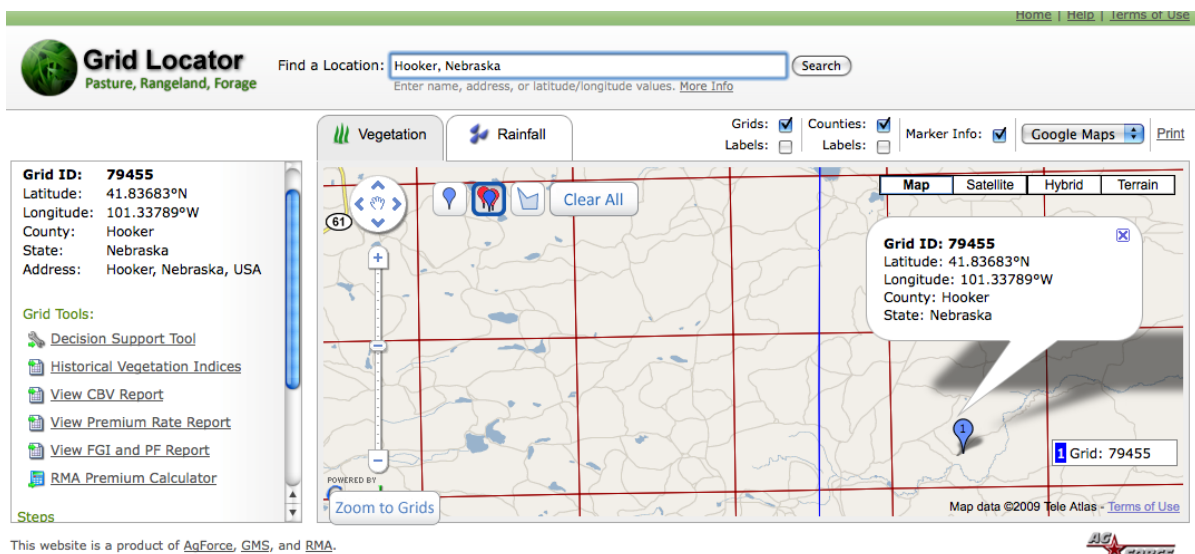


Figure 2. Map display of a location in Hooker County Nebraska, with a point of reference selected.

Figure 2., also displays the selected location information for a point of reference (Figure 3). Within the map, the “symbol” represents the current location and the point where information is collected. Above the symbol is the Grid ID, latitude, longitude, county and state (this information is also provided in the upper left hand section of the Grid Locator map screen).

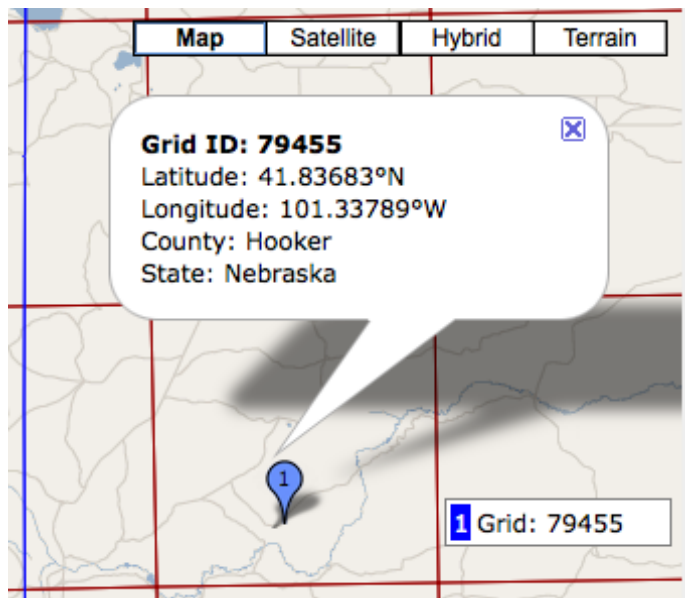


Figure 3. the symbol for the point of reference and the associated information (Label)

The goal is to position the ‘symbol’ (blue in this example) over the location of the insured’s acreage, also known as the point of reference. As defined in the policy, a point of reference is: - *“A method of identifying and documenting the location of the insured acreage and the associated grid ID, as provided on the acreage report, and covered under these Basic Provisions”*.

The blue ‘symbol’ can be selected/placed by clicking on the map. By increasing the resolution (zoom), the map will zoom to a more exact location. Decreasing the resolution will expand the map, including a larger area.

Within the map displayed the grid boundaries are outlined with red lines while the counties are outlined with a blue line (displayed in Figure 2 and 3). For instance, on the map in Figure 3, the blue ‘symbol’ is located just inside of Grid ID #79455. Again the Point of Reference information is displayed in the label (and in the upper left corner of the screen).

The map can be printed at any time by clicking the “Print ” icon located on the screens. It is recommended that a map be printed with each point of reference on an insured policy for verification purposes. **If you do not have a FSA farm serial number, FSA tract number, and FSA field number for the acreage (refer to the policy for full requirements) you MUST print the map with the point of reference information and outline the acreage boundaries. This must be provided and on file at the time of acreage reporting.**

### **The Grid Locator Photo Map (Layer)**

As previously mentioned, there are several map types available to assist the applicant in locating their property. The first and default map, was previously displayed (Figure 1). The other map types include, the Satellite map (Figure 4), the Hybrid map (Figure 5) and the Terrain map (Figure 6). Each of these maps displays details that can help the applicant identify landmarks on their property. The Point of Reference information will be displayed on each of these maps.

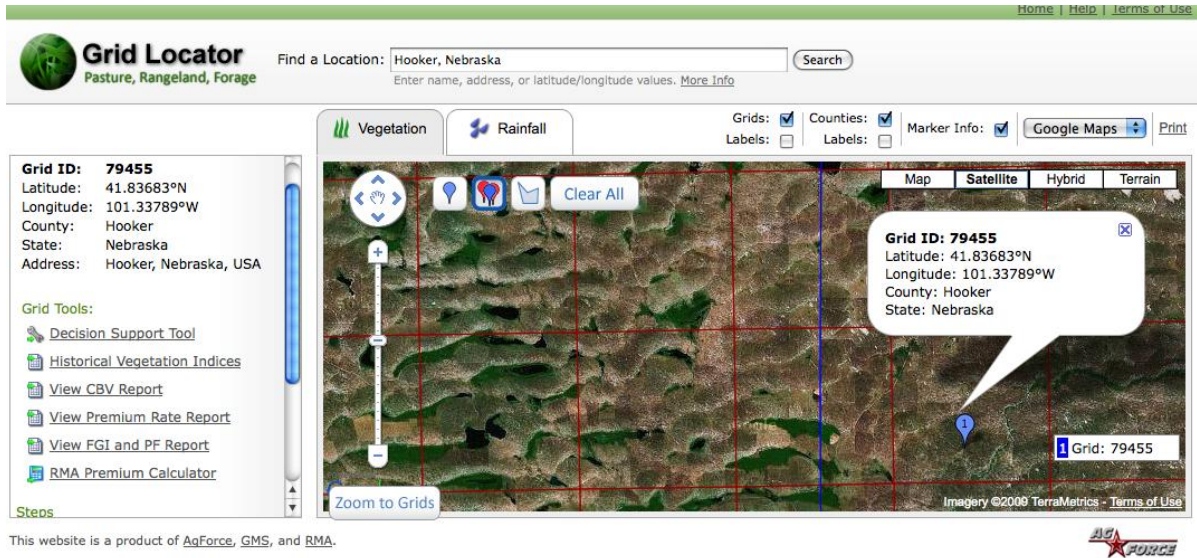


Figure 4. Satellite Map Example

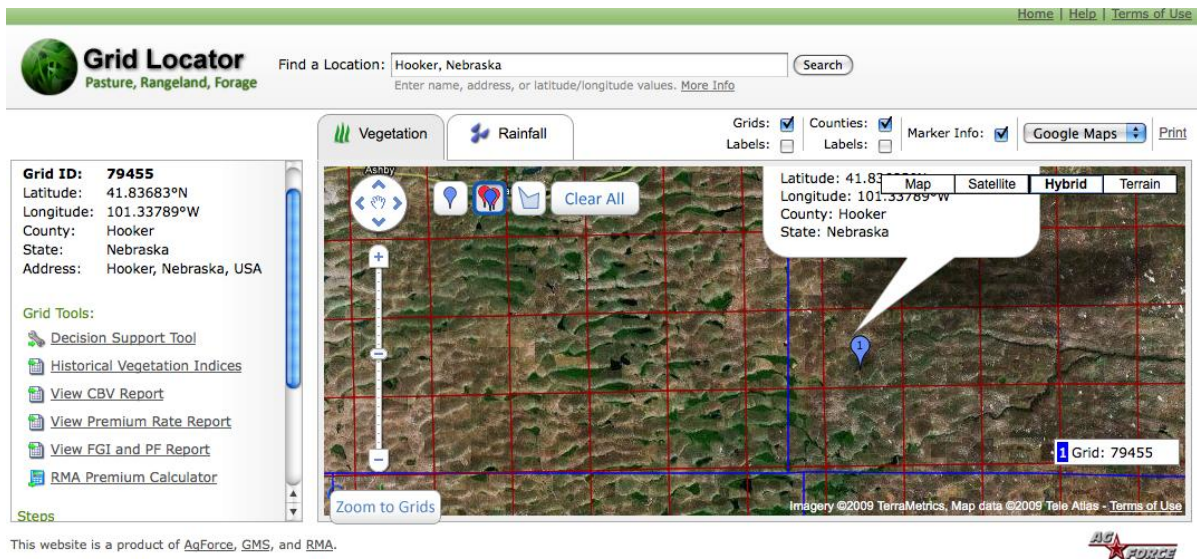


Figure 5. Hybrid Map Example.

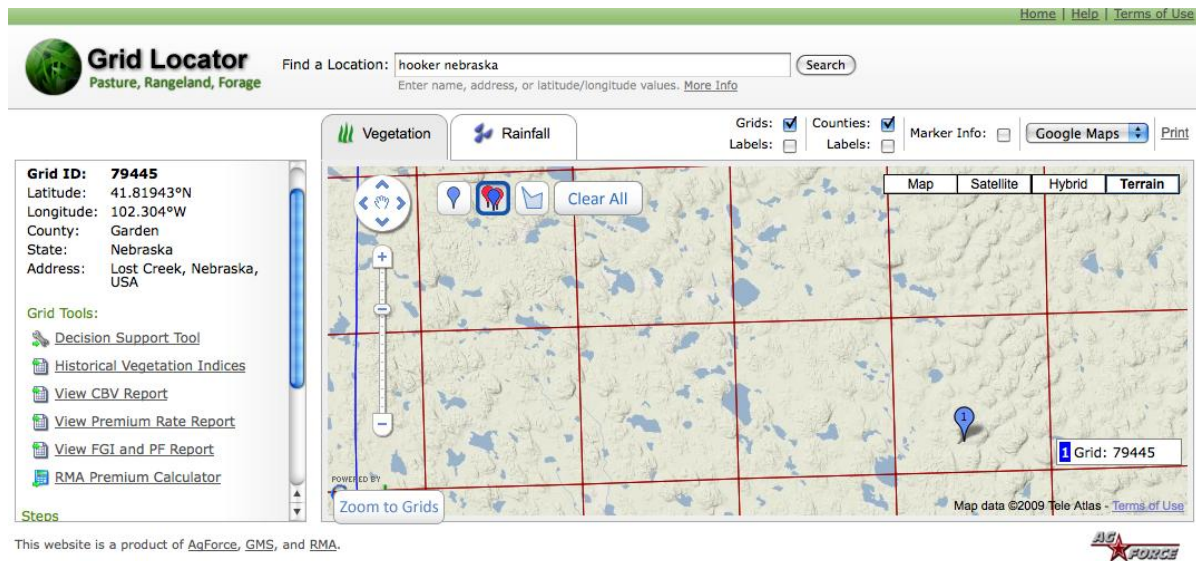


Figure 6. Terrain Map Example.

### Locating the Insured's Acreage – Basic Steps

This section lists the Basic Steps of how to find the location of insured's acreage by using the program's website. These steps will help determine if the acreage is contained in a single grid or crosses over into more than one grid. An individual applicant may have more than one acreage location and will need to go through the steps for each location. A Grid ID must be selected for each location that is insured. This information will assist the insured in determining how many Grid IDs will be needed.

- Step 1 Type in the city and/or county and/or state name where the property is located (if no response is provided for the selected city, select a larger city near the property). The more information you provide (i.e. city, county, and state) will ensure the map locator tool returns the accurate location. The location can also be selected by clicking on the United States default map and then narrowing the search location.
- Step 2 Narrow the search by selecting an area close to where the property to be insured is actually located. The area can be narrowed by either clicking on the map or using the zoom function. The area can be refined even further by increasing the resolution of the map and selecting additional tools (county labels, etc.).
- Step 3 It is recommended that once the applicant has located the general area where the property is located, that they continue to refine the search by switching to one of the additional map options (Satellite, Hybrid, or Terrain), to assist in identifying the exact acreage boundaries.
- Step 4 Using the desired map, the applicant needs to choose an appropriate size of view that allows for proper identification of the property boundaries and the corresponding Grid ID(s) (the tool provides an option to select multiple points on one map).

If an insured wishes to determine the location of acreage and Grid ID(s) by utilizing Latitude and Longitude, click on the appropriate link for **Longitude/Latitude Lookup**. Once the link is selected follow the on-screen options. It is important to point out that the Latitude and Longitude must be recorded in the format specified to accurately determine the Point of Reference.

**Latitude and Longitude must be selected for each location that is insured.**

### Determining the Grid ID(s) – Specific Guidelines

By using the steps previously outlined, the applicant should be able to locate their acreage and corresponding Grid IDs on the map. This section discusses the specific guidelines in selecting appropriate Grid ID(s).

When selecting a Grid ID, several options are available to the applicant, depending on their circumstances and the location of their acreage. Therefore, go to the section that best represents the property or the mixture of properties. The table below is a quick reference on the insured’s grid options and gives information on which section to refer to below for additional information.

Type of Acreage	Grid Information	Guideline	See Section
Contiguous Acreage	Single Grid	Choose one point of reference	A (1) Contiguous Acreage – One Grid
Contiguous Acreage	Multiple Grids – Combined	Choose one point of reference	A (2) Contiguous Acreage – Multiple Grids (Combined)
Contiguous Acreage	Multiple Grids – Separated	Choose one point of reference for each Grid ID selected or assigned as applicable	A (3) Contiguous Acreage – Multiple Grids (Separated)
Non-Contiguous Acreage (multiple properties)		Choose one point of reference for each, separate, non-contiguous acreage in the county.	B Non-Contiguous Acreage

It is also important to note that the same acres cannot be insured in more than one Grid ID or county and the amount of insured acreage will not exceed 100 percent of the insurable acreage of the crop in the county.

#### A. Determining the Grid ID(s) for Contiguous Acreage

Contiguous Acreage is defined as: - *“Acreage of an insured crop owned by you, or rented by you for cash or crop share, in a county or grid that continues into an adjoining state, county or grid without interruption. Acreage separated by only a public or private right-of-way, waterway, or an irrigation canal will be considered contiguous.”*

Contiguous acreage may all be contained in one Grid ID or may spread into more than one Grid ID and/or county. If the acreage crosses into more than one grid and/or county, all contiguous acreage of the crop type may be combined into a single Grid ID using one point of reference for all of the acreage, including acreage that extends into an adjoining numbered grid or county Or, the insured may chose to separate the insured acreage into separately numbered Grid IDs where the acreage is located.

### (1) Contiguous Acreage – One Grid

If the insured's acreage is contiguous and located entirely within one state, grid and county, use the four Basic Steps previously listed to locate the insured's acreage and conduct the following steps:

- Step 5           The insured must then pick **one** point of reference on the property by moving the symbol (red or blue) to that location. The Vegetation Index Grid ID listed in the label or at the upper left of the screen (and on the map itself) will be the Grid ID used in the policy.
  
- Step 6           Click on the Print Icon on the screen and print the map. This map will be used as a record to verify the Grid ID. Once printed the property boundary can also be outlined and initialed by the insured for verification purposes.
  
- Step 7           The insured must certify that the point of reference used for each grid ID is identifying the insured acres covered under the VI Basic Provisions and the applicable Crop Provisions.

For example, as shown in Figure 7, (the following Figures are for illustration purposes the Grid ID Locator tool and maps will have a difference appearance) the Insured's Acreage is contiguous and located entirely in Grid 1. Therefore, the point of reference is chosen on the property and Grid 1 will be the only Grid ID used in the policy.

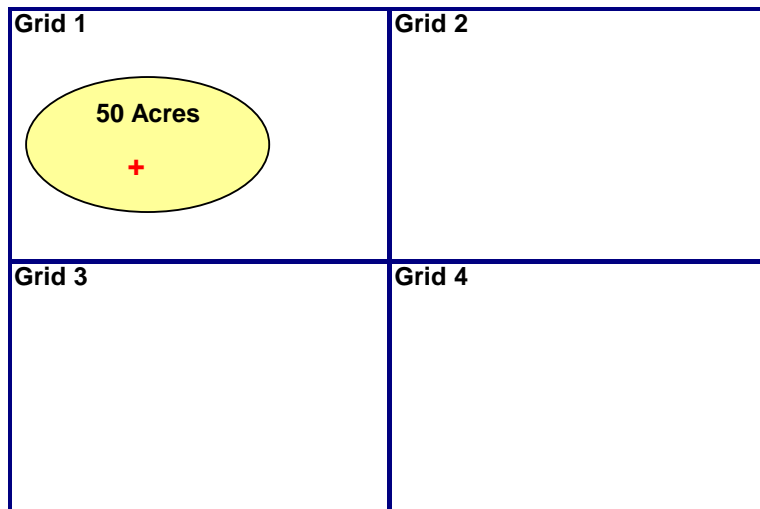


Figure 7. Contiguous Acreage - One Grid

### (2) Contiguous Acreage – Multiple Grids (Combined)

If the insured's acreage is contiguous and crosses into more than one grid and/or county, the insured has the option to **combine** the grids and/or counties and choose **one** reference point for the entire contiguous acreage. Use the four Basic Steps listed above to find the insured's acreage and add the following steps:

- Step 5 The insured must then pick **one** point of reference in the contiguous acreage by moving the symbol to that location. The Vegetation Grid ID listed in the label or at the upper left of the screen will be the Grid ID used in the policy.
- Step 6 Click on the Print Icon on the screen and print the map. This map will be used as a record to verify the Grid ID. Once printed the property boundary can also be outlined and initialed by the insured for verification purposes.
- Step 7 The insured must certify that the point of reference used for each grid ID is identifying the insured acres covered under the VI Basic Provisions and the applicable Crop Provisions.

For example, in Figure 8 below, the insured's acreage is located in Grid 1 and Grid 2. The insured chose to combine the acreage; therefore, they will choose one point of reference for all of their acreage in both Grid 1 and Grid 2. In this example, the point of reference is in Grid 1, therefore Grid 1 will be the only Grid ID used in the policy.

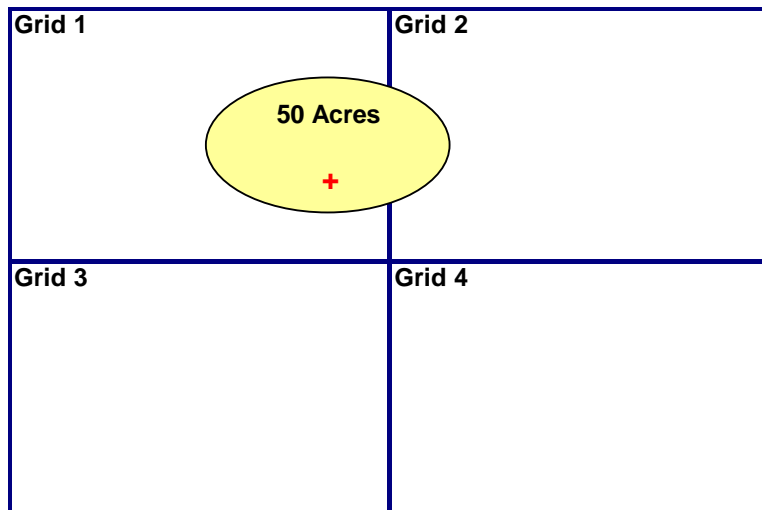


Figure 8. Contiguous Acreage - Multiple Grids (Combined)

### (3) Contiguous Acreage – Multiple Grids (Separated)

If the insured's acreage is contiguous and crosses into more than one grid and/or county, the insured can choose a point of reference for each grid and/or county and separate the acreage by Grid ID and/or county. If the insured chooses to separate the acreage into separate numbered Grid IDs, one point of reference will be selected in each Grid ID. Each Grid ID would be insured as a separate unit. If acreage is separated into a different county, a new policy for an additional county must be written.

Use the four Basic Steps previously listed to locate the insured's acreage and add the following steps:



- Step 5 The insured must then pick **one** point of reference in each Grid by moving the “symbol” to that location. The Vegetation Grid ID listed in the label or at the upper left of the screen will be the Grid ID used in the policy.
- Step 6 Click on the Print Icon on the screen and print the map. This map will be used as a record to verify the Grid ID. Once printed the property boundary can also be outlined and initialed by the insured for verification purposes.
- Step 7 The insured must certify that the point of reference used for each grid ID is identifying the insured acres covered under the VI Basic Provisions and the applicable Crop Provisions.
- Step 8 The insured must certify that the acreage assigned to each grid ID is accurate to the best of their knowledge.

**Steps 5 through 8 must be repeated for each grid that will be insured separately. If acreage is separated into a different county, a new policy for an additional county must be written.**

For example, in Figure 9, the insured’s acreage is located in Grid 1 and Grid 2. The insured chose to separate the acreage by Grid ID; therefore, choosing a point of reference in Grid 1 and a point of reference in Grid 2. In this example, the insured would certify and assign that there is approximately 35 acres in Grid 1 and 15 acres in Grid 2.

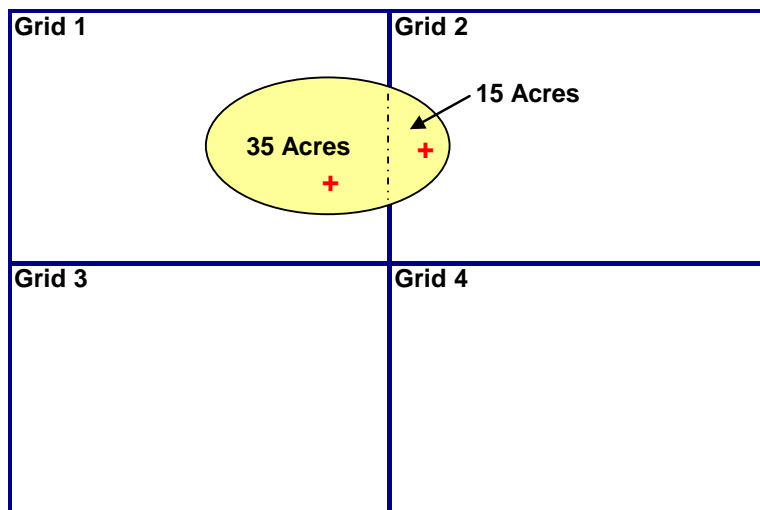


Figure 9. Contiguous Acreage - Multiple Grids (Separated)

### **B. Determining the Grid ID(s) for Non-Contiguous Acreage**

A point of reference must be selected for each separate, non-contiguous insured acreage of the crop that is located in the county. The steps in determining the point of reference are similar to the steps outlined for contiguous acreage, depending on whether or not the acreage crosses grid and/or county lines, and is repeated for each non-contiguous acreage area to be insured.

For example, in Figure 10, the insured has two separate acreage locations in two grids. The insured would have to pick a point of reference in Grid 1 and a point of reference in Grid 4 and insure the two properties separately.

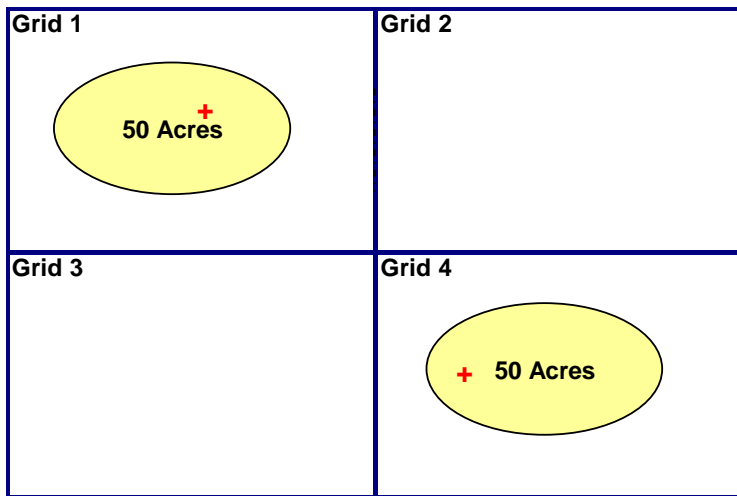


Figure 10. Non-contiguous Acreage Located in Separate Grids

In Figure 11, the insured has two separate acreage locations in three grids. First, the insured would have to select a point of reference in Grid 4. Similar to the contiguous acreage guidelines, the insured then has the option of combining the acreage in Grid 1 and Grid 2, or insuring them separately by grid. Therefore, depending on the insured, there may be 2 or 3 Grid ID's in this scenario.

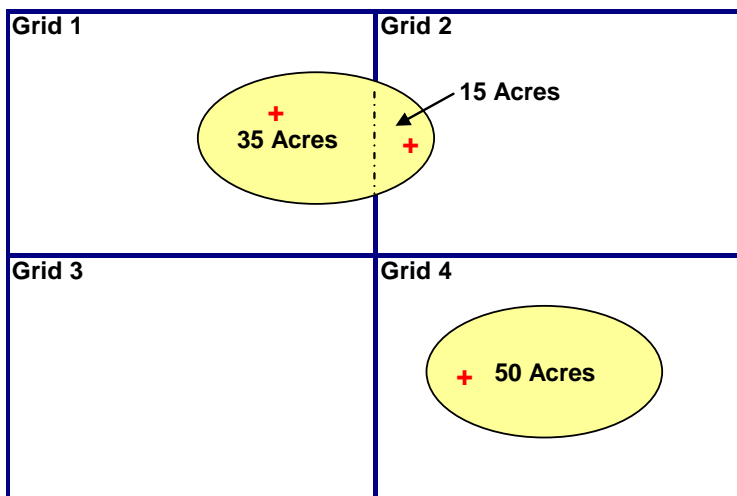


Figure 11. Non-contiguous Acreage in Different Grids

As illustrated in Figure 12, if the non-contiguous acreage is located in the same grid, the non-contiguous acreage will be combined and given a single Grid ID; however as the policy states the insured acreage must be documented (Point of Reference - *A method of identifying and documenting the location of the insured acreage and the associated grid ID, as provided on the acreage report, and covered under these Basic Provisions.* In addition the FSA farm FSA serial number, FSA tract number, and FSA field number for the acreage must be provided on the

acreage report (see policy provisions if these cannot be provided). The FSA farm serial number, FSA tract number, and FSA field number are not required for API policies.

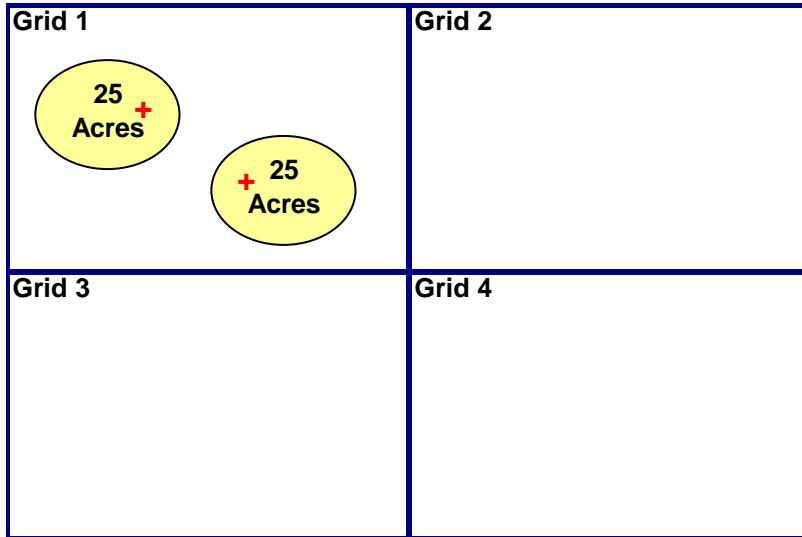


Figure 12. Non-contiguous Acreage in the Same Grid

### Other Links on the Website

In addition to the link described above, there are additional links and instructions on the Pasture, Rangeland, Forage and Apiculture web pages that are useful to the applicant. When these additional links are selected the insured will be able to view other options and data related to the VI-PRF and VI-API Pilot Programs. Once a link is selected, follow the on line options to view the information desired.

## Exhibit 5: Pasture, Rangeland, Forage Vegetation Index Example

### Introduction

The first half of this example walks a producer, Joe Rancher, through the basic information needed at the time of sign up/application. The second half of this example illustrates how the indemnity will be calculated at the time of loss. The same steps are applicable to the Apiculture Vegetation Index program. The below steps are also followed for Apiculture with the producer selecting the acreage upon which colonies will be located.

### At the time of application

#### Acreage and Grid Information

Joe Rancher has 645 acres of grazingland and hayland in two counties in Colorado. His acreage is contained in five non-contiguous properties: A, B, C, D, and E.

A = grazingland (100% share)

B = grazingland (100% share)

C = grazingland and hayland (50% share)

D = grazingland (100% share)

E = grazingland (100% share)

Using the website, Joe Rancher locates his property and the corresponding grids (For information on locating the grids and using the website, see Exhibit 4 of this handbook). His properties are illustrated below in Figure 13.

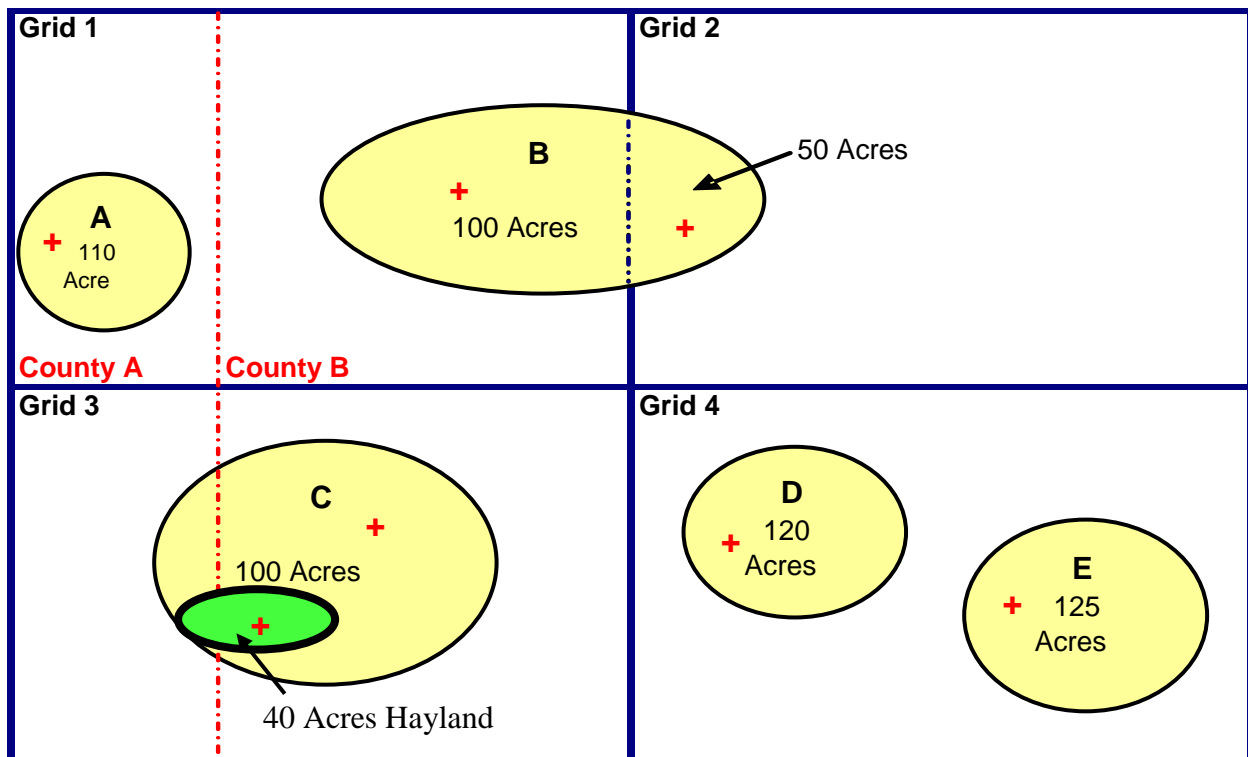


Figure 13. Joe Rancher's Properties

Joe Rancher decides to insure the four properties (535 insurable acres) located in County B (named Archuleta County in this example) and leave property A, uninsured in County A. Had he chosen to insure Property A in County A, he would have had to insure that acreage separately because Property A is non-contiguous from his other properties and located in a different county.

For his properties in County B, he has a couple of options in dividing his property among the four Grid IDs.

**Property B – Contiguous acreage spread into more than one grid (grazingland with 100% share)**

Since the insurable acreage spreads into Grid 1 and Grid 2, all contiguous acreage of the crop type may be combined into a single Grid ID using one point of reference for all of the acreage. Or, Joe Rancher may choose to separate the insured acreage into separate numbered Grid IDs in which the acreage is located.

**Decision:**

Joe Rancher decides to separate the property into two Grid IDs; with 100 insured acres in Grid 1 and 50 insured acres in Grid 2. He picks a reference point in each Grid ID, certifies the point of reference is identifying the insured acreage in the grid, and certifies the approximate amount of insured acreage in each grid.

**Property C – Contiguous acreage spread into more than one county, which contains two crop types (both grazingland and hayland with 50% share)**

Since the insurable acreage spreads into County A and County B, all contiguous acreage of the crop type may be combined into a single county (and Grid ID) using one point of reference for all of the acreage. Or, Joe Rancher may choose to separate the insured acreage by county in which the acreage is located. Of the 140 insurable acres in this property 100 acres is grazingland and 40 acres is hayland.

**Decision:**

Joe Rancher decides to pick a point of reference in County B and use that point of reference to represent all the contiguous insurable grazingland acreage (100 acres) in both County A and County B. He certifies the point of reference is identifying the insured acreage in the grid.

If Joe Rancher decides to insure his hayland acres (40 acres) he would follow the same steps for hayland, by selecting a point of reference in Grid 3 and depending on the point of reference the hayland would be insured in either County A or County B. Joe Rancher would also need to make all the decisions needed to complete the worksheet for his hayland acres.

**Property D and E – Non-Contiguous acreage located in a single grid (both grazingland with 100% share)**

Since properties D and E are both located in Grid ID 4, the acreage is combined and insured as a single unit, even though they are non-contiguous acres and a point of reference(s) identifies the Grid ID for both insured acreage. However, a Point of reference must be selected for each acreage and for PRF policies the FSA farm serial number, FSA tract number, and FSA field

number for the acreage must be provided on the acreage report (see policy provisions if these cannot be provided). The FSA farm serial number, FSA tract number, and FSA field number are not required for API policies.

**Decision:**

Joe Rancher identifies Properties D and E and insures all 245 acres under Grid ID 4. He picks a reference point and certifies that it is identifying the insured acreage in the grid.

**To recap, the following are the Grid IDs, the properties located in each, and acreage insured for grazingland:**

Grid ID	Property	Insured Acreage
Grid 1 (insert the actual Grid ID number for the insured, i.e. 377881)	B	100
Grid 2 (insert the actual Grid ID number for the insured, i.e. 377882)	B	50
Grid 3 (insert the actual Grid ID number for the insured, i.e. 388773)	C	100
Grid 4 (insert the actual Grid ID number for the insured, i.e. 388774)	D & E	245
<b>Total</b>		<b>495</b>

**Protection**

**Coverage Level**

Joe Rancher chooses a coverage level of 85%. He is required to insure each Grid ID in the county at the same coverage level.

**Protection Factor**

Joe Rancher chooses a protection factor of 120 percent. The protection factor is defined as: “A percentage factor selected by you that allows you to individualize your coverage based on the productivity of the crops you produce, and that ranges from 60 through 150 percent (selections can be made in one percent increments)”. Only one protection factor may be selected per county and crop type.

**County Base Value**

By looking at the Pasture, Rangeland, Forage Vegetation reports (rates and subsidies), Joe Rancher sees that the county base value per acre for grazingland is \$17.65 (For more information on premiums, rates, and subsidies contact your agent).

**Dollar Amount of Protection per Acre**

The Dollar Amount of Protection per acre is the result of multiplying the County Base value, times the coverage level selected, times the protection factor percentage selected. Joe Rancher’s Dollar Amount of Protection per Acre is calculated as follows:

\$ Amt of Protection per Acre = county base value x coverage level selected x protection factor selected

$$= \$17.65 \times .85 \times 1.20$$

$$= \$18.00 \text{ per Acre}$$

**Percent of Insured Acreage per Index Interval and Number of Insured Acres per Index Interval**

Joe Rancher may designate a specific percentage of the insured acreage to more than one index interval for each Grid ID, or he may put all of the insured acreage into one index interval.

Joe Rancher and his agent look up the Special Provisions of Insurance for Colorado. In Archuleta County (used only as an example, may not match the Special Provisions for Archuleta County), he finds that if he places insured acreage in more than one index interval, he must place a minimum of 10% of his insured acreage in that index interval chosen. He also learns that the sum of all the insured acres per index interval must equal 100% of the total number of insured acres for each Grid ID, crop type, and share. As stated in the Basic provisions, an insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one index interval. For example: If an insured selects April – June Index Interval, which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure acreage in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.

The Special Provisions list the following crop types and practices:

TYPE(S) -----	PRACTICE(S) -----
(063) Hayland	(645) January - March Index Interval
(063) Hayland	(646) February - April Index Interval
(063) Hayland	(647) March - May Index Interval
(063) Hayland	(648) April - June Index Interval
(063) Hayland	(649) May - July Index Interval
(063) Hayland	(650) June - August Index Interval
063) Hayland	(651) July - September Index Interval
(063) Hayland	(652) August - October Index Interval
(063) Hayland	(653) September - November Index Interval
(063) Hayland	(654) October - December Index Interval
(064) Grazingland	(645) January - March Index Interval
(064) Grazingland	(646) February - April Index Interval
(064) Grazingland	(647) March - May Index Interval
(064) Grazingland	(648) April - June Index Interval
(064) Grazingland	(649) May - July Index Interval
(064) Grazingland	(650) June - August Index Interval
(064) Grazingland	(651) July - September Index Interval

(064) Grazingland  
 (064) Grazingland  
 (064) Grazingland

(652) August - October Index Interval  
 (653) September - November Index Interval  
 (654) October - December Index Interval

Joe Rancher chooses the following percent of insured acreage per index interval in which he can now calculate the number of acres per index interval (also listed in the table is the unit number based on his decisions):

Grid ID	Index Interval	Unit Number	% Protection	Number of acres
<b>Grid 1</b> Insured acreage = 100	650	00100	100%	100 ac
	<b>Total</b>		<b>100%</b>	<b>100 ac</b>
<b>Grid 2</b> Insured acreage = 50	646	00100	10%	5 ac
	649	00200	50%	25 ac
	652	00300	40%	20ac
	<b>Total</b>		<b>100%</b>	<b>50 ac</b>
<b>Grid 3</b> Insured acreage = 100	646	00100	50%	50 ac
	652	00200	50%	50 ac
	<b>Total</b>		<b>100%</b>	<b>100 ac</b>
<b>Grid 4</b> Insured acreage = 245	646	00100	50%	122.5 ac
	649	00200	30%	73.5 ac
	653	00300	20%	49 ac
	<b>Total</b>		<b>100%</b>	<b>245 ac</b>

### Policy Protection per unit

To figure out the policy protection per unit, Joe Rancher must multiply the Dollar Amount of Protection per Acre, which was already calculated as \$18.00, times the number of insured acres per unit (crop type, Grid ID, index interval, and share), times his applicable share. The table below shows the result of that calculation.

Grid ID	Index Interval	Unit Number	Policy Protection/Unit
<b>Grid 1</b> Insured acreage = 100 100% share	650 (\$18.00 X 100ac X 1.0 )	00100	\$1,800
<b>Grid 2</b> Insured acreage = 50 100% share	646 (\$18.00 X 5ac X 1.0)	00100	\$90
	649 (\$18.00 X 25ac X 1.0)	00200	\$450
	652 (\$18.00 X 20ac X 1.0)	00300	\$360
<b>Grid 3</b> Insured acreage = 100 50% share	646 (\$18.00 X 50ac X 0.50)	00100	\$450
	652 (\$18.00 X 50ac X 0.50)	00200	\$450
<b>Grid 4</b> Insured acreage = 245 100% share	646 (\$18.00 X 122.5ac X 1.0)	00100	\$2,205
	649 (\$18.00 X 73.5ac X 1.0)	00200	\$1,323
		00300	\$882



	653 (\$18.00 X 49ac X 1.0)		
<b>Policy Protection</b>			<b>\$8,010</b>

### Policy Protection

The Policy Protection is the sum of the policy protection per unit(s), and in this example equals \$8,010.

### Premium Rate

Joe Rancher and his agent look up the applicable premium rate using the premium rate tables provided in the actuarial documents or the applicable Vegetation Index Reports (rates and subsidies). The table below shows the premium rate for each Grid ID and index interval (the rates and information used in the example are for illustration purposes and are not actual rates for Archuleta County).

Grid ID	Index Interval	Unit Number	Rate/\$100
Grid 1	650	00100	\$12.00
Grid 2	646	00100	\$13.50
	649	00200	\$13.00
	652	00300	\$12.00
Grid 3	646	00100	\$13.00
	652	00200	\$12.00
Grid 4	646	00100	\$13.00
	649	00200	\$14.00
	653	00300	\$15.00

### Premium/Unit (Index interval)

For each index interval, Joe Rancher will need to determine the Premium/unit using the following formula:

$$\text{Premium/unit (Index interval)} = \begin{aligned} & \$ \text{ amount of protection/acre} \\ & \times \text{ number of insured acres/unit} \\ & \times \text{ premium rate} \\ & \times \text{ adjustment factor of 0.01} \\ & \times \text{ share} \end{aligned}$$

For example, in Grid 1, his Premium for (650) June - August Index Interval would be calculated as follows:

$$\begin{aligned} & \text{Total Premium by Grid 1,} \\ & \text{(650) June - August Index Interval} \end{aligned} \quad \begin{aligned} & = \$18.00 (\$ \text{ amt of protection per unit}) \\ & \times 100 \text{ insured acres} \end{aligned}$$

$$\begin{aligned}
 & \times 12.00 \text{ (premium rate)} \\
 & \times 0.01 \text{ (adjustment factor)} \\
 & \times 1.0 \text{ (share)} \\
 & = \mathbf{\$216.00}
 \end{aligned}$$

Using the formula, Joe Rancher determines the Premium/unit (Index Interval) for each grid (premium rounded to the nearest whole dollar).

Grid ID	Insured Acreage & Share	Index Interval	Unit Number	Policy Protection/unit	Premium Rate/\$100	Premium
Grid 1	100ac	650	00100	(\$18.00 x 100 ac x 1.0 share) = \$1,800	\$12.00	\$216
	100% share	<b>Total</b>		<b>\$1,800.00</b>		<b>\$216</b>
Grid 2	50ac 100% share	646	00100	\$90.00	\$13.50	\$12
		649	00200	\$450.00	\$13.00	\$59
		652	00300	\$360.00	\$12.00	\$43
		<b>Total</b>		<b>\$900.00</b>		<b>\$114</b>
Grid 3	100ac 50% share	646	00100	\$450.00	\$13.00	\$59
		652	00200	\$450.00	\$12.00	\$54
		<b>Total</b>		<b>\$900.00</b>		<b>\$113</b>
Grid 4	245ac 100% share	646	00100	\$2,205.00	\$13.00	\$287
		649	00200	\$1,323.00	\$14.00	\$185
		653	00300	\$882.00	\$15.00	\$132
		<b>Total</b>		<b>\$4,410.00</b>		<b>\$604</b>
<b>Grand Totals</b>				<b>\$8,010</b>		<b>\$1,047</b>

The sum of all the premiums per unit equals the Total Policy Premium for grazingland in Archuleta County (rates and name are only used for example purposes. They are not the actual rates), which in this example equals \$1,047.

### Premium Subsidy

To find the applicable subsidy percentage, Joe Rancher and his agent refer to the subsidy tables provided in the Pasture, Rangeland, Forage Vegetation reports (rates and subsidies) or actuarial document. For the coverage level of 85%, the applicable subsidy percentage is 55%.

The Premium Subsidy per Unit is the result of the total Premium per unit multiplied by the applicable Subsidy Percentage. Therefore Joe Rancher's Premium Subsidy per unit is calculated as follows:

$$\begin{aligned}
 \text{Premium subsidy per unit} &= \text{Premium per unit} \times \text{subsidy rate} \\
 \text{Example} &= \$216 \times 0.55 \\
 &= \$119
 \end{aligned}$$

## Premium due from Grower

The Premium due from Grower for each unit (index interval) is the result of the Premium per unit minus the Premium Subsidy Amount per unit. Therefore Joe Rancher's Producer Premium per unit is calculated as follows:

$$\text{Producer premium per unit} = \text{Premium per unit} - \text{Premium subsidy per unit}$$

$$\begin{array}{rcl} \text{Example Premium Due} & = & \$216 - \$119 \\ & & \$97 \end{array}$$

Using the above formulas Joe Rancher and his agent calculates the Premium Subsidy per unit and the producer premium per unit. They sum these columns to determine the Total subsidy amount and the Total Producer Premium. The table below provides a summary of these calculations.

Grid ID	Index Interval	Unit Number	Premiums	Premium Subsidy	Producer Premium
Grid 1	650	00100	\$216	\$119	\$97
Grid 2	646	00100	\$12	\$7	\$5
	649	00200	\$59	\$32	\$27
	652	00300	\$43	\$24	\$19
Grid 3	646	00100	\$59	\$32	\$27
	652	00200	\$54	\$30	\$24
Grid 4	646	00100	\$287	\$158	\$129
	649	00200	\$185	\$102	\$83
	653	00300	\$132	\$73	\$59
<b>Totals</b>			<b>\$1,047</b>	<b>\$576</b>	<b>\$471</b>

## Vegetation Index Worksheet

Joe Rancher and his agent can view all of these calculation and a summary of this information for the county by utilizing the VI Worksheet and accompanying instructions contained in Exhibit 1 of this handbook. This will allow them to see everything organized into one document.

## At the Time of Loss

At the end of the insurance period, the FCIC issues a Final Grid Index for Joe Rancher's insured grids. As determined above, his Trigger Grid Index is 85 for all grids and index intervals. The following table illustrates the Final Grid Index for each grid and index interval and whether the Final Grid Index is above or below the Trigger Grid Index.

Grid ID	Index Interval	Unit Number	Final Grid Index	Above or Below Trigger
Grid 1	650	00100	120	Above
Grid 2	646	00100	110	Above

	649	00200	90	Above
	652	00300	70	<b>Below</b>
<b>Grid 3</b>	646	00100	110	Above
	652	00200	60	<b>Below</b>
<b>Grid 4</b>	646	00100	120	Above
	649	00200	70	<b>Below</b>
	653	00300	60	<b>Below</b>

### Calculating Indemnities

A payment is only made if the Final Grid Index for the insured unit is less than the Trigger Grid Index, regardless of the individual's actual NDVI values (vegetation index) in that index interval.

$$\text{Payment calculation factor} = \frac{(\text{Trigger Grid Index} - \text{Final Grid Index})}{\text{Trigger Grid Index}}$$

$$\text{Indemnity payment} = \text{Payment calculation factor} \times \text{Policy protection per unit}$$

#### Grid 1 – 100 Acres

**June - August Index Interval:** The Final Grid Index of 120 is above the Trigger Grid Index of 85. No indemnity is due.

#### Grid 2 – 50 Acres

**February - April Index Interval:** The Final Grid Index of 110 is above the Trigger Grid Index of 85. No indemnity is due.

**May - July Index Interval:** The Final Grid Index of 90 is above the Trigger Grid Index of 85. No indemnity is due.

**August - October Index Interval:** The Final Grid Index of 70 is below the Trigger Grid Index of 85. The indemnity is calculated as follows:

$$\begin{aligned} \text{Payment calculation factor} &= \frac{(85 - 70)}{85} \\ &= .176 \end{aligned}$$

$$\begin{aligned} \text{Indemnity payment} &= .176 \times \$360 \\ &= \mathbf{\$63} \end{aligned}$$

#### Grid 3 – 100 Acres

**February - April Index Interval:** The Final Grid Index of 110 is above the Trigger Grid Index of 85. No indemnity is due.

**August - October Index Interval:** The Final Grid Index of 60 is below the Trigger Grid Index of 85. The indemnity is calculated as follows:

$$\begin{aligned}\text{Payment calculation factor} &= \frac{(85 - 60)}{85} \\ &= .294\end{aligned}$$

$$\begin{aligned}\text{Indemnity payment} &= .294 \times \$450 \\ &= \mathbf{\$132}\end{aligned}$$

**Grid 4 – 245 Acres**

**February - April Index Interval:** The Final Grid Index of 120 is above the Trigger Grid Index of 85. No indemnity is due.

**May - July Index Interval:** The Final Grid Index of 70 is below the Trigger Grid Index of 85. The indemnity is calculated as follows:

$$\begin{aligned}\text{Payment calculation factor} &= \frac{(85 - 70)}{85} \\ &= .176\end{aligned}$$

$$\begin{aligned}\text{Indemnity payment} &= .176 \times \$1,323 \\ &= \mathbf{\$233}\end{aligned}$$

**September - November Index Interval:** The Final Grid Index of 60 is below the Trigger Grid Index of 85. The indemnity is calculated as follows:

$$\begin{aligned}\text{Payment calculation factor} &= \frac{(85 - 60)}{85} \\ &= .294\end{aligned}$$

$$\begin{aligned}\text{Indemnity payment} &= .294 \times \$882 \\ &= \mathbf{\$259}\end{aligned}$$

**A total indemnity of \$687 will be due to Joe Rancher, for this County, for this crop year.**

## Appendix A: Pasture Rangeland Forage

This appendix, along with the Vegetation Index (VI) Crop Insurance Standards Handbook, Basic Provisions, PRF Crop Provisions (VI-PRF) and Special Provisions provides information for those involved with the VI plan of insurance. Because of the broad scope of information covered by this handbook the information provided in this Appendix provides additional clarification and requirements specific to the VI-PRF plan of insurance. The information provided in this Appendix does not affect the construction or meaning of any of the policy provisions.

### 1. SPECIAL INSTRUCTIONS

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**In addition to standards provided in Section 2 of this handbook:**

VI-PRF Definitions:

- **Dollar amount of protection per acre** – The county base value per acre, specified in the actuarial documents for each county, crop, type, and practice is determined by multiplying the selected coverage level by the selected **protection** factor. The insured will only have one dollar amount of protection per acre for each crop and type.
- **Index interval** – A period of time during which NDVI data is collected that is used to calculate the expected grid index and final grid index, which is designated as a practice on the Special Provisions. The insured may select more than one index interval during the crop year for each type, share, and grid ID.
- **Insured acres** – Insured acres do NOT have to equal the insured's insurable acres. The insured may select the number of acres to be insured. However, the amount of insured acreage in the county cannot exceed 100 percent of the insured's insurable acres in the county.
- **Types** – Grazingland and hayland.
- **Unit** – The insured acres within or assigned to a grid ID for each crop, type, index interval, and share, in the county.

The following provides clarification related to what a VI-PRF insured can select as it relates to crop, type, index interval, etc. and how they are reported, for insurance, insurability, coverage, etc.:

- The insured will have only one dollar amount of protection per acre for each type, while the amount of premium and indemnity will be calculated separately for each unit.

- The insured is not required to insure all of the insurable acres in the county under the PRF policy. The number of insured acres in the county is selected by the insured.
- The dollar amount of protection per acre is equal to the selected county base value per acre multiplied by the selected coverage level (70% - 90%) and the selected **protection** factor (60% - 150%) specified in the county actuarial documents for the type.
- The insured will have only one dollar amount of protection per acre for each crop, and type, provided in the actuarial documents for the county.
- The insured's policy protection for each unit is equal to the dollar amount of protection per acre multiplied by the insured acres multiplied by the share as shown on the Summary of Coverage.
- An insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one interval. For example: If an insured selects April – June Index Interval, which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure acreage in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.
- Separate points of reference must be established for each type in a grid.
- CAT is not available under the VI-PRF plan of insurance, and any reference to CAT in the VI Crop Insurance Standards Handbook is not applicable.

## **2. INSURANCE CONTRACT INFORMATION**

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### **A. INSURABILITY**

#### **In addition to standards provided in Section 3C(5) of this handbook:**

More than one PRF type is available in a county. Because more than one type is available in a county, and the Crop Provisions allows, the applicant may choose to insure grazingland, hayland, or both.

However, grazingland and hayland cannot both be insured on the same acreage. If the insured acres are intended to be utilized as both grazingland and hayland, and meet the requirements of both types, the insured must choose one type to report and insure the acreage. The insured may choose to change the type in subsequent crop years, as long as the acreage continues to meet the requirements of the type selected.

## **B. YIELD HISTORY AND PRODUCTION RECORDS**

**In addition to the standards provided in Section 3E(1) of this handbook:**

Insureds are NOT required to report yield history or maintain production records.

## **3. UNDERWRITING**

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### **A. GENERAL APPLICATION REQUIREMENTS**

**In addition to the standards provided in Section 4B(7) of this handbook:**

**Insured Acres:** The insured acres do NOT have to equal your insurable acres.

The applicant may designate a specific percentage of the insured acres to more than one index interval listed in the Special Provisions for each grid ID, type, and share. The sum of all the insured acres per unit must equal 100% of the insured acres for each grid ID by type and share.

An insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one practice. For example: If an insured selects April – June Index Interval, which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure acreage in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.

The minimum percentage of insured acres allowed in any one index interval, by grid ID, type and share, is further defined in the Special Provisions.

### **B. ACREAGE REPORT FORM REQUIREMENTS**

**In addition to the standards provided in Section 4E(7) of this handbook:**

**Unit Number:** The insured acres within or assigned to a grid ID for each type, index interval, and share accounts for a unit.

For example, a policyholder chooses to insure non-contiguous acreage of grazingland and hayland that happens to lie in a single grid ID. The policyholder selects two index intervals per type and has a 100 percent share. The unit structure will be:



- Unit **00100**, Grazingland, Interval = March - May Index Interval
- Unit **00200**, Grazingland Interval = August - October Index Interval
- Unit **00100**, Hayland Interval = March - May Index Interval
- Unit **00200**, Hayland Interval = August - October Index Interval

**C. ACREAGE REPORT REVIEW CRITERIA**

**In addition to the standards provided in Section 4G of this handbook:**

**Total acres of the type versus insurable and insured acres in the county:**

Proof of total acres in the county **must** be established by the insured by providing documentation of acreage measured by FSA or an independent third party (which could include but not limited to, an approved measuring service, land surveys, other federal government agencies, legal land deed, **written lease agreement**, or tax document, which provides a detailed measurement of acreage). It is the insured's responsibility to provide acceptable **written** documentation of PRF acreage for a review. Documentation must specify and distinguish the acreage for the insured type from other crop acreage.

**In addition to the standards provided in Section 4G of this handbook:**

Insureds will be able to prove shares by providing acceptable verifiable and written documentation. Acceptable verifiable proof of lease/share agreements that an insured can utilize include, but not limited to, hand written documents (with signatures), invoices, etc. Verbal agreements are NOT acceptable verifiable documentation. Written documentation must include legal descriptions or a method to clearly identify the location of the lease.

## Appendix B: Apiculture

This appendix, along with the Vegetation Index (VI) Crop Insurance Standards Handbook, Basic Provisions, API Crop Provisions (VI-API) and Special Provisions, provides information for those involved with the VI plan of insurance. Because of the broad scope of information covered by this handbook, the information provided in this Appendix provides additional clarification and requirements specific to the VI-API plan of insurance. The information in this Appendix does not affect the construction or meaning of any of the policy provisions.

As previously stated, for ease in the administration of the terms of this policy and to avoid the duplication of documents, as used throughout the Basic Provisions and applicable handbooks and directives, the term “acre” is replaced by “colony;” “acres” and “acreage” is replaced by “colonies;” “acreage report” is replaced by “colony report;” and “acreage reporting date” is replaced by “colony reporting date.”

### 1. SPECIAL INSTRUCTIONS

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**In addition to standards provided in Section 2 of this handbook:**

VI-API Definitions:

- **Dollar amount of protection per colony** – The county base value per colony, specified in the actuarial documents for each county, crop, type, and practice is determined by multiplying the selected coverage level, by the selected **protection** factor. The insured will only have one dollar amount of protection per colony for the county.
- **Index interval** – A period of time during which NDVI data is collected that is used to calculate the expected grid index and final grid index, which is designated as a practice on the Special Provisions. The insured may select more than one index interval during the crop year for each share and grid ID.
- **Insured colonies** – Insured colonies do NOT have to equal insurable colonies for the insured. The insured may select the number of colonies to be insured. However, the amount of insured colonies in the county will not exceed 100 percent of the insured’s insurable colonies in the county.
- **Locations** – The physical point of residence of hives on a tract of land or acreage.
- **Index Interval** – Periods of time labeled as index intervals and are contained in the Special Provisions. The insured cannot select a separate coverage level or dollar amount of protection per colony for each index interval for the VI-API.
- **Types** – There are no types available.

- **Unit** – The insured colonies within or assigned to a grid ID, by share and index interval in the county.

The following provides clarification related to what an insured can select as it relates to crop, index interval, etc. and how they are reported, for insurance, insurability, coverage, etc.:

- The insured will have only one dollar amount of protection per colony, while the amount of premium, and indemnity will be calculated separately for each unit.
- The insured is not required to insure all of the insurable colonies in the county under the API policy. The insured colonies in the county are the number of colonies selected by the insured to be insured.
- The dollar amount of protection per colony is equal to the selected county base value per colony multiplied by the selected coverage level (70% - 90%) and the selected **protection** factor (60% - 150%) specified in the county actuarial documents for the crop.
- The insured will have only one dollar amount of protection per colony for the crop.
- The insured's policy protection for each unit is equal to the dollar amount of protection per colony multiplied by the insured colonies multiplied by the share as shown on the Summary of Coverage.
- An insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one interval. For example: If an insured selects April – June Index Interval, which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure colonies in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.
- CAT is not available under the VI-API plan of insurance. Any reference in the VI Crop Insurance Standards Handbook to CAT is not applicable.

## **2. INSURANCE CONTRACT INFORMATION**

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### **A. INSURABILITY**

**In addition to standards provided in Section 3C(5) of this handbook:**

There are no additional types available for the VI-API plan of insurance.

The same colonies cannot be insured in any other county, state, grid, or plan of insurance in the United States.

## **B. YIELD HISTORY AND PRODUCTION RECORDS**

**In addition to the standards provided in Section 3E(1) of this handbook:**

- (1) Insureds are NOT required to report yield history or maintain production records for the VI-API policy.

## **3. UNDERWRITING**

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### **A. GENERAL APPLICATION REQUIREMENTS**

**In addition to the standards provided in Section 4B(4) of this handbook:**

**Eligible County:** County as defined in the Crop Provisions, also includes any acreage, which contains locations occupied by insurable colonies contained within a grid ID that crosses an adjoining county line where the acreage and colonies are contiguous. In this definition, colonies shall not be substituted for acreage.

**In addition to the standards provided in Section 4B(7) of this handbook:**

**Insured Colonies:** As provided in the VI-API Crop Provisions, the insured colonies do NOT have to equal the insurable colonies.

The applicant may designate a specific percentage of the insured colonies to more than one index interval listed in the Special Provisions for each grid ID and share. The sum of all the insured colonies per unit must equal 100% of the insured colonies for each grid ID by share.

An insured may select any index interval provided in the Special Provisions; however, the selected index interval(s) cannot contain any month in more than one practice. For example: If an insured selects April – June Index Interval which include the months of April, May, and June they cannot select any other interval offered that contains any of these same months. In this example (all intervals are offered in the county) an insured is not allowed to insure colonies in February – April Index Interval, March – May Index Interval, May – July Index Interval, or June – August Index Interval because each of these intervals contains one of the months included in April – June Index Interval.

The minimum percentage of insured colonies allowed in any one index interval, by grid ID, and share, is further defined in the Special Provisions.

**In lieu of the standards provided in Section 4B(7)(a)(7) of this handbook:** FSA farm serial number, FSA tract number, and FSA field number, nor supporting documentation are required for API policies.

**In addition to the standards provided in Section 4B(7)(c) of this handbook:**

The insured must certify that the selected index intervals support the vegetation production necessary to support the insured crop.

## **B. GENERAL COLONY REPORTING REQUIREMENTS**

**In addition to the standards provided in Section 4D of this handbook:**

United States Colonies: The insured must report ALL colonies in which they have a share in the United States. This number must be reported on all colony report forms for the insured regardless of state, county, or plan of insurance. As provided in section 4 E, an AIP may utilize unused columns of their acreage report form to accommodate the required entry.

## **C. ACREAGE REPORT FORM REQUIREMENTS**

**In addition to the standards provided in Section 4E(1) of this handbook:**

Insurable Colonies: The insured must possess written documentation, at the time of application, documenting insurability of the colonies for all counties selected for insurance. Documentation may include, but is not limited to, history of locating colonies in the county, land ownership in the county in which colonies are located, a lease agreement allowing the placement of colonies on acreage, etc.

**In addition to the standards provided in Section 4E(7) of this handbook:**

**Unit Number:** The insured colonies within or assigned to a grid ID for each crop and share accounts for a unit. For example:

- Unit **00100**, Apiculture, share 100%, Interval = February - April Index Interval
- Unit **00200**, Apiculture, share 100%, Interval = May - July Index Interval
- Unit **00300**, Apiculture, share 50%, Interval = February - April Index Interval
- Unit **00400**, Apiculture, share 50%, Interval = May - July Index Interval

There is no basic unit discount and optional units are not applicable.

**In lieu of the standards provided in Section 4E(9) of this handbook:** FSA farm serial number, FSA tract number, and FSA field numbers nor supporting documentation are required on API policies.

#### **D. ACREAGE REPORT REVIEW CRITERIA**

**In addition to the standards provided in Section 4G of this handbook:**

**Total colonies versus insurable and insured colonies in the county:** In addition to total, insurable, and insured colonies in the county, the review should confirm that all colonies in the United States in which the insured has a share were also reported. Proof of actual colonies and their insurability is the responsibility of the insured and can be established by maintaining and providing documentation of colony numbers in the county and United States. Acceptable types of colony documentation the insured can use may include, but are not limited to; FSA or other federal or state governmental reporting systems/requirements, tax records, transportation invoices, purchase agreements, bill of sales, legal deeds, etc.

The insured must possess, at the time of **colony reporting**, acceptable verifiable written documentation of insurability of the colonies in the county, for all counties selected for insurance. Documentation may include, but is not limited to, history of locating colonies in the county, land ownership in the county in which colonies are located, a lease agreement allowing the placement of colonies on acreage, handwritten documents/statement (with signatures), etc. Verbal agreements are not acceptable verifiable documentation.

**In addition to the standards provided in Section 4G of this handbook:**

The insured will be able to prove shares by providing acceptable verifiable and written documentation. Acceptable verifiable proof of lease/share agreements that an insured can utilize include, but are not limited to, hand written documents (with signatures), invoices, etc. Verbal agreements are NOT acceptable verifiable documentation.

**In lieu of the standards provided in Section 4I(5) and 5(B)(11) of this handbook:** FSA farm serial numbers, FSA tract numbers, and FSA field numbers, nor supporting documentation are not required on API policies.