



Federal Crop  
Insurance  
Corporation



Risk Management  
Agency



Product  
Administration  
and Standards  
Division

FCIC- 18120 (08-2007)

# PASTURE, RANGELAND, FORAGE

# VEGETATION INDEX

# INSURANCE STANDARDS HANDBOOK

**2008 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: 18120 (08-2007)</b>	
<b>SUBJECT:</b>		<b>OPI: Product Administration and Standards Division</b>	
<b>PASTURE, RANGELAND, FORAGE VEGETATION INDEX INSURANCE STANDARDS HANDBOOK 2008 AND SUCCEEDING CROP YEARS</b>		<b>APPROVED:</b>  /s/ Tim B. Witt  <b>Deputy Administrator, Product Management</b>	<b>DATE:</b>  August 22, 2007

**THIS HANDBOOK CONTAINS THE OFFICIAL FCIC-APPROVED UNDERWRITING, ADMINISTRATION, AND LOSS ADJUSTMENT STANDARDS FOR THIS CROP FOR THE 2008 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**.

Changes for crop year **2008** (FCIC-18120) issued August 2007:

1. Page 3, Section 3C(5): Revised language to allow insured to obtain coverage under both PRF Hayland and Forage Production if allowed under the SPOI.
2. Page 52, Appendix C: Added language regarding the FSA decision on NAP.

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**PASTURE, RANGELAND, FORAGE 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 Pasture, Rangeland, Forage Vegetation Index plan of insurance policies in a uniform and timely manner. General topics found in the Crop Insurance Handbook and Loss Adjustment Manual should be referenced as applicable.

- A. The Pasture, Rangeland, Forage Vegetation Index plan of insurance is a risk management tool offered by the Federal Crop Insurance Corporation (FCIC) for farmers/ranchers who rely on pasture, rangeland and forage for haying and/or grazing.
- B. A Pasture, Rangeland, Forage Vegetation Index policy provides coverage from a significant reduction in the Vegetation Index, and may be issued to a landlord and/or tenant, as well as an owner/operator when the requirements of the policy and this handbook are met.
- C. This handbook along with the Group Risk Plan (GRP) Basic Provisions, Pasture, Rangeland, Forage Vegetation Index Crop Provisions, and Special Provisions of Insurance provides information for those involved with the Pasture, Rangeland, Forage Vegetation Index plan of insurance. 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 Appendixes with additional information for those involved in the Pasture, Rangeland, Forage Vegetation Index plan of insurance. These Exhibits and Appendixes include:
  - (1) **Exhibit 1: Pasture, Rangeland, Forage Vegetation Index Worksheet**
  - (2) **Exhibit 2: Pasture, Rangeland, Forage Vegetation Index Policy Disclaimer**
  - (3) **Appendix A: Determining Grid ID(s) and Use Of The Website**
  - (4) **Appendix B: Pasture, Rangeland, Forage Vegetation Index Example**

## 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 insurance provider.

It is the insurance providers' 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) Terms, abbreviations, and definitions specific to the Pasture, Rangeland, Forage Vegetation Index policy and this handbook, which are not defined in the GRP Basic Provisions, Pasture, Rangeland, Forage Vegetation Index Crop Provisions, or Special Provisions of Insurance, or the following section of this handbook are defined as they appear in the text.

- (3) Abbreviations:

**APH** - Actual Production History

**CAT** - Catastrophic Risk Protection

**EROS** - Earth Resources Observation System (EROS) Data Center of the U.S.  
Geological Survey and USDA Forest Service

**FCIC** - Federal Crop Insurance Corporation

**GRP** - Group Risk Plan

**MPCI** - Multiple Peril Crop Insurance

**NDVI** - Normalized Difference Vegetation Index

**RMA** - Risk Management Agency

**SPOI** - Special Provisions of Insurance

## **3. INSURANCE CONTRACT INFORMATION**

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### **A. GENERAL INFORMATION**

Pasture, Rangeland, Forage Vegetation Index coverage is based on the experience of the GRID rather than INDIVIDUAL FARMS. It indemnifies the insured in the event the grid's accumulated index (the "final grid index") falls below the insured's "trigger grid index". The requirements and days allowed for payment are contained in the Pasture, Rangeland, Forage Vegetation Index Crop Provisions.

### **B. ELIGIBILITY**

A Pasture, Rangeland, Forage Vegetation Index policy may be issued to a landlord and/or tenant, as well as an owner/operator, when the requirements of the policy and this handbook are met.



## C. INSURABILITY

The crop types insured under this policy are grazingland and hayland forage. The insurance provider must determine that the insured has complied with all policy provisions of the insurance contract. Pasture, Rangeland, Forage Vegetation Index Crop Provisions which are to be considered in this determination include (but are not limited to):

- (1) Application - The insured should submit a Pasture, Rangeland, Forage Vegetation Index application to the insurance provider, in accordance with the FCIC Handbook 24040, Document and Supplemental Standards Handbook (DSSH), including the Privacy Act and Nondiscrimination Statement, no later than the sales closing date as specified in the Special Provisions of Insurance (SPOI).
- (2) An acreage report must be filed annually with the insurance provider. The report must be on the insurance provider's form adhering to form standards contained in the DSSH and filed each year by the acreage reporting date.
- (3) Pasture, Rangeland, Forage Vegetation Index policy is available ONLY in the states, counties, and grids listed in the county actuarial documents.
- (4) Pasture, Rangeland, Forage Vegetation Index policy is a continuous contract unless canceled in writing by either the insured or the insurance provider by the cancellation date. Insureds requesting cancellation of their Pasture, Rangeland, Forage Vegetation Index policy and/or transfer to another insurance provider must do so in writing by the dates specified in the Crop Provisions.
- (5) More than one Pasture, Rangeland, Forage Vegetation Index crop type is available in a county. Because more than one crop type is available in a county, the applicant may choose to insure grazingland, hayland, or both. The applicant is not required to insure 100% of acreage of the crop type (s) acreage in the county; however, if the applicant chooses to insure the crop types under the Pasture, Rangeland, Forage Vegetation Index policy, they cannot insure the same crop types under any other FCIC subsidized program (except as noted in section 3 (C) (6) (b) of this handbook **or the SPOI**) or obtain payment under certain other programs administered by the USDA, such as but not limited to the Conservation Reserve Program or Non-Insurance Assistance Program. Refer to the Crop and Special Provisions of Insurance for additional information.

**The same acreage cannot be insured as both grazingland and hayland. If the insured acreage is intended to be utilized as both grazingland and hayland and meets the requirements of both crop types, the insured must choose one crop type under which to report the acreage.**

(6) Pasture, Rangeland, Forage Vegetation Index coverage consists of the following requirements:

- (a) Coverage is to be provided in accordance with the terms of the GRP Basic Provisions and the Pasture, Rangeland, Forage Vegetation Index Crop Provisions, and Special Provisions of Insurance.
- (b) Unless otherwise specifically allowed by the Pasture, Rangeland, Forage Vegetation Index Crop Provisions or SPOI, an insured producer CANNOT insure the same crop type in the same crop year through any other federally subsidized crop insurance program in counties where they carry Pasture, Rangeland, Forage Vegetation Index coverage (except as noted below). If more than one policy has been written that covers the insured's share of the crop type, 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.

Exception, Pasture, Rangeland, Forage Vegetation Index policyholders may insure the same crop in the same county and crop year under an Adjusted Gross Revenue (AGR) or AGR-Lite policy.

- (c) Catastrophic Risk Protection (CAT) coverage is not available for the Pasture, Rangeland, Forage Vegetation Index plan of insurance. Refer to the county actuarial documents or Pasture, Rangeland, Forage Vegetation reports (rates and subsidies) for specific coverage level and policy protection per acre.
- (d) Protection is limited to the county base value per acre specified in the county actuarial documents for each crop type, multiplied by the maximum productivity factor, multiplied by the maximum coverage level, multiplied by the insured share.
- (e) An insured may designate insured acreage to more than one index interval listed in the Special Provisions of Insurance (SPOI) for each Grid ID and crop type, with the sum of all the insured acreage per unit (crop type, Grid ID, index interval) equaling 100% of the insured acreage selected for each Grid ID by crop type. The minimum percentage allowed in any one index interval is further defined in the Special Provisions of Insurance.
- (f) The insured may select **only one** coverage level and dollar amount of protection per acre for each of the insured crop types in the county. The dollar amount of protection per acre selected will be applied to each Grid ID and crop type.

- (g) The insured must report and certify, by the acreage reporting date, ALL insurable (to include uninsured), and insured acreage of the crop type in the county in which the insured has an interest, by share, for each Grid ID and crop type listed in the county actuarial documents.
- (h) For the Pasture, Rangeland, Forage Vegetation Index policy the insured must certify their insurable and insured acreage by Grid ID. The Acreage Certification must be completed by the insured on the acreage report, in the remarks section. In this section, the insured must certify in writing that the point of reference used for each grid is representative of insurable acreage and insured acreage located within, and assigned as applicable, to each Grid ID by crop type, that the acreage assigned to each Grid ID(s) is accurate to the best of the insured's knowledge, and the acreage can be used as grazingland or hayland as noted on the Acreage Report.
- (i) For each Pasture, Rangeland, Forage Vegetation Index unit (Grid ID, crop type, and index interval):
  - 1. Indemnity payments are calculated independently on a unit basis and are not offsetting.
  - 2. An insured may select more than one index interval listed in the Special Provisions of Insurance for each Grid ID and crop type, with the amount for all insured acreage equal to 100% of the total insured acreage for the Grid ID and crop type.
- (7) Acreage altered or removed as criteria for participation in any other government program is not insurable and 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 GRP Basic Provisions for the insured crop will not be insured.
- (9) Applicants are required to sign a disclaimer form at the time of application. Reference the disclaimer form in Exhibit 2 of this handbook.
- (10) The following coverage does NOT apply to Pasture, Rangeland, Forage Vegetation Index policy:
  - (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) Pasture, Rangeland, Forage Vegetation Index 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, multiplied by the coverage level selected by the insured, and multiplied by the productivity factor selected by the insured. The insured may select only one dollar amount of protection per acre for each county and crop type.
- (2) The expected grid index times the coverage level percentage (contained in the actuarial documents or Pasture, Rangeland, Forage Vegetation reports (rates and subsidies)) elected equals the insured's "trigger grid index" (Expected Grid Index X Coverage level percent = Trigger grid index).
- (3) The mean accumulated Vegetation Index by index interval, which is calculated using the historical NDVI gridded data from EROS, normalized and expressed as a percentage, such that the mean is 100, is used to establish the expected grid index.
- (4) Premium rates are stated in dollars per one-hundred dollars of protection.

#### **EXAMPLE:**

If the premium rate is \$10 per hundred dollars insured and the protection per acre is \$16, the premium per acre is calculated by  $10 \times 0.01 = .10$ .  $.10 \times \$16 = \$1.60$  premium rate per insured acre.

- (5) The Pasture, Rangeland, Forage Vegetation Index Worksheet (Exhibit 1) may be copied for use as a resource in explaining the Pasture, Rangeland, Forage Vegetation Index plan of insurance.

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

- (1) Insureds are NOT required to report yield history or maintain production records for the Pasture, Rangeland, Forage Vegetation Index policy. However, they are encouraged to maintain any individual crop 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.
- (2) If a Pasture, Rangeland, Forage Vegetation Index insured returns to a plan of insurance that uses APH yields for the same crop types, their APH yield history database will be updated ONLY if continuous crop production reports (including the period insured under Pasture, Rangeland, Forage Vegetation Index policy)

are filed when returning to such a plan. Failure to file the most recent year's crop production report may limit the insured's choices. APH procedures will apply and can be referenced in the CIH.

## **F. ROUNDING RULES**

- (1) Acres to tenths (X.X);
- (2) Share and factors to thousandths (X.XXX);
- (3) Dollars to dollars and cents (X.XX);
- (4) Index Values to tenth (XXX.X); and,
- (5) Payment calculation factor to thousandths (X.XXX).

## **G. PAYMENT CALCULATIONS**

- (1) The "expected grid index" shown on the county actuarial document represents the mean accumulated Vegetation index by index interval for each Grid ID, which is calculated using the historical EROS NDVI gridded data, normalized and expressed as a percentage, such that the mean is 100.
- (2) The final grid index is the index determined by FCIC based on the current year's index utilizing EROS gridded NDVI data for each index interval by Grid ID. The insured receives a 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 (dollar amount of protection per acre, multiplied by the insured acreage, multiplied by the share for the unit) selected by the insured. Refer to the Pasture, Rangeland, Forage Vegetation Index Crop Provisions or Appendix B, 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, losses must be due to natural causes. Losses due to fire or other actions will be determined in the following manner:

- a) If the action 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 action 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.
- (3) Any unpaid amounts due the insurance provider arising from Pasture, Rangeland, Forage Vegetation Index policy, or any other policy authorized under the Act are to be deducted from any indemnity payments due to the

insured. Refer to the Special Provisions of Insurance for the appropriate billing dates.

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

- (1) An administrative fee of \$30 for each crop in each county will be payable under the same terms and conditions as the policy premium.

Administrative fees may be waived for limited resource farmers.

- (2) The annual premium is determined by applying the basic policy premium for each county, Grid ID, crop type, coverage level, and index interval selected, based on the Pasture, Rangeland, Forage Vegetation Index policy actuarial documents or Pasture, Rangeland, Forage Vegetation Index Reports

The premium is determined by multiplying the dollar amount of protection per acre, times the premium rate per hundred dollars of protection for the selected coverage level for the unit (each Grid ID, crop type, and index interval), times the number of acres, times 0.01, times the share, and subtracting the applicable subsidy. The premium cannot be less than zero.

**Example:**

Premium per unit = (dollar amount of protection per acre X premium rate X number of acres X 0.01 X share), for each index interval. Total policy premium will equal the sum of all the premiums calculated for each unit.

- (3) The insurance provider will bill the insured for the total actual premium and administration fees less applicable subsidy. Premium and administrative fees shall be due and payable 30 days after the billing date specified in the Special Provisions of Insurance.
- (4) The insured may change the coverage level selection or protection for subsequent years. The insurance provider must be notified in writing by the sales closing date for the crop year the desired change is to take effect.

## **4. UNDERWRITING**

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Policy documents for the Pasture, Rangeland, Forage Vegetation Index plan of insurance contract consist of the following:

- a) Application;
- b) GRP Basic Provisions;
- c) Pasture, Rangeland, Forage Vegetation Index Crop Provisions; and,
- d) Special Provisions of Insurance.

## **A. FORMS AND PROCEDURES**

The following forms are used to administer the Pasture, Rangeland, Forage Vegetation Index 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 a blank copy of the Pasture, Rangeland, Forage Vegetation Index 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) **Schedule of Insurance.** 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) **Pasture, Rangeland, Forage Vegetation Index Reports and Special Provisions of Insurance.** The Pasture, Rangeland, Forage Vegetation Index Reports and Special Provisions of Insurance contain county actuarial data that includes the following Pasture, Rangeland, Forage Vegetation Index policy-specific information: Expected Grid (s) Index; County Base Value; Index Intervals (i.e. practices); 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) **Pasture, Rangeland, Forage Vegetation Index Worksheet.** Refer to Exhibit 1 for a blank copy of the worksheet and instructions.

## **B. GENERAL APPLICATION REQUIREMENTS**

- (1) **Sales Closing Dates.** Listed in the Special Provisions of Insurance.

Insured producers switching insurance coverage from another FCIC Plan to a Pasture, Rangeland, Forage Vegetation Index policy must provide a written cancellation for the other policy, for the crop type that will be insured under Pasture, Rangeland, Forage Vegetation Index policy, by the other crop's cancellation date. A new application for insurance must be signed by the Pasture, Rangeland, Forage Vegetation Index crop sales closing date. If the other policy for the crop that will be insured under Pasture, Rangeland, Forage Vegetation Index policy is not canceled, the other coverage will remain in effect and the Pasture, Rangeland, Forage Vegetation Index policy crop type coverage will be void. Refer to the Crop Insurance Handbook (CIH) for additional information.

(2) **Late-Filed Applications.** Accepted ONLY when there is documented evidence that:

(a) In the unlikely event the RMA website at <http://www.rma.usda.gov/> or successor website is unavailable on the sales closing date and the insured is unable to properly identify the Grid ID and Index Interval(s), coverage will attach provided the insured signs an application and provides a report of the insurable acreage as outlined under section 3 of the Crop Provisions by the Sales Closing Date confirming your intent to insure.

Upon the availability of the RMA website or successor website, the insured must select the Grid ID, Index Intervals and provide a completed report of acreage confirming all insurable and insured acreage, as outlined under section 7 of the Crop Provisions within 2 business days.

(3) **Levels of Coverage.** 70, 75, 80, 85, or 90 percent. For Pasture, Rangeland, Forage Vegetation Index policies, the insured may select any percentage of coverage shown on the actuarial documents or Pasture, Rangeland, Forage Vegetation Reports for the Grid ID and crop type. Refer to the Pasture, Rangeland, Forage Vegetation Index Crop and Special Provisions, and GRP Basic Provisions.

(4) **Eligible Counties.** Listed in the Special Provisions of Insurance. Multiple county contracts may be insured. County for the Pasture, Rangeland, Forage Vegetation Index plan of insurance as defined in the Crop Provisions is also defined to include any acreage contained within a grid that crosses an adjoining county line where the acreage is contiguous.

(5) **Eligible Grids.** Listed in the actuarial documents. Multiple county grids may be insured. The applicant will determine a point of reference and the corresponding Grid ID by the sales closing date for all insured acreage by accessing and using the <http://www.rma.usda.gov/> or a successor website.



- (a) Separate points of reference must be established for each crop type in a grid as follows:
1. A point of reference must be established for any insured acreage of the crop that is not contiguous.
  2. In the case of contiguous insured acreage that crosses grid or county lines, a point of reference must be established as follows:
    - i) If the insured chooses to combine the contiguous acreages of the crop type into one single Grid ID, a single point of reference must be established for all of the contiguous acres.
    - ii) If the insured chooses to separate the contiguous acreage into separate Grid ID's, they must establish the single point of reference for each Grid ID
- (b) For each grid the insured elects to insure, they must report by grid:
1. The Grid ID; and
  2. The amount of insurable and insured acreage located within or assigned to the grid. Insurable acreage less insured acreage determines uninsured acreage.
- For example: If the contiguous acreage is located in four grids and the insured chooses to insure the acreage in separate grids, the acreage can be separated into two, three, or four grids. If the insured selects three grids, they must establish the points of reference for each grid to determine the Grid ID. Insurable and insured acreage located within or assigned to each grid must also be established.
- (c) The same acres cannot be insured in more than one Grid ID or county (except as noted in section 3 (C) (6) (b) of this handbook). The amount of insured acreage will not exceed 100 percent of the policyholder's insurable acreage of the crop type in the county.
- (d) The Grid ID for all insured acreage will be included on the summary of protection.
- (e) Acreage associated with a Grid ID in a county will be subject to that county's actuarial documents; the county name(s) or county code(s) and grid number(s) must be shown on the application.

- (6) **Insurable Acreage.** Only Pasture, Rangeland, Forage Vegetation Index crop acreage for the insurable use, reported by the acreage reporting date listed in the Special Provisions of Insurance, and grown in counties listed in the Special Provisions of Insurance is insurable at the time of filing the acreage report. Refer to the Pasture, Rangeland, Forage Vegetation Index Crop, Special, and GRP Basic Provisions.
- (a) The applicant may designate a specific percentage of the insured acreage to more than one index interval listed in the Special Provisions of Insurance for each Grid ID and crop type. The sum of all the insured acreage per unit (index interval) must equal 100% of the insured acreage for each Grid ID by crop type.
- (b) The percentage of the insured acreage required in any one index interval is further defined in the Special Provisions of Insurance.
- (7) **Dollar Amount of Protection per Acre.** The county base value per acre specified in the actuarial documents for each crop type, multiplied by the coverage level selected by the insured, and multiplied by the productivity factor (60% through 150%) selected by the insured. The applicant may choose only one dollar amount of protection per acre for each county and crop type.
- (8) **Policy Protection.** The dollar amount the insured will receive if the final grid index is zero for all crop types, Grid ID(s) and index interval(s) selected. It is equal to the sum of all the insured's policy protection per unit (the result of multiplying the dollar amount of protection per acre, by your insured acres, by your share for the unit).
- (9) **A Mandatory Disclaimer Form.** Prepared by the agent when a Pasture, Rangeland, Forage Vegetation Index application is completed. The agent and applicant must sign and date a disclaimer form for EACH GRP crop being insured when the insurance application is signed. Refer to the blank disclaimer form found in Exhibit 2 of this handbook.

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

The Pasture, Rangeland, Forage Vegetation Index applications must contain AT A MINIMUM the requirements found in the FCIC Handbook 24040, Document and Supplemental Standards Handbook (DSSH) plus:

- (1) **Dollar Amount of Protection per Acre:** The county base value per acre specified in the actuarial documents for each crop type, multiplied by the coverage level selected by the insured, and multiplied by the productivity factor (60% through 150%) selected by the insured. The applicant may choose only one dollar amount of protection per acre for each county and crop type.

- (2) **Grid Identification (ID):** List the number of each Grid ID shown on the county actuarial documents where the point of reference is established for the insured acreage.
- (3) **Index Interval:** Three-digit index interval code (i.e. practice code) shown on the county actuarial documents.

**D. GENERAL ACREAGE REPORTING REQUIREMENTS**

- (1) Insurance providers must obtain an annual report of acreage from ALL Pasture, Rangeland, Forage Vegetation Index insureds.
- (2) Acreage must be reported on approved forms. Any other crops insured under other MPCI plans of insurance must be reported separately.
- (3) Acreage report data must be timely and properly submitted by insurance providers to FCIC as stated in the Standard Reinsurance Agreement.
- (4) Acreage reporting dates are stated in the Pasture, Rangeland, Forage Vegetation Index Special Provisions of Insurance. The acreage report must be received by the agent each year on or before the acreage reporting date specified in the Special Provision of Insurance. If the acreage reporting date falls on a Saturday, Sunday, or legal holiday, then the date by which the crop acreage must be reported will be extended to the next business day.
- (5) Late-filed acreage reports (initially received at the agent's office after the specified acreage reporting date) will be either accepted or rejected by the insurance provider in accordance with section 15 of the Pasture, Rangeland, Forage Vegetation Index Crop Provisions.
- (6) Corrected/revised acreage reports may be taken prior to the published acreage reporting date for any reason. After the published acreage reporting date, a CORRECTED acreage report may be completed at the insurance provider's discretion and identified as "Corrected" if the correction affects the Schedule of Insurance. 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 is written as 78.0., etc.

A REVISED acreage report must meet the criteria specified in the Pasture, Rangeland, Forage Vegetation Index Crop Provisions section 7 (e) (6).

- (7) For the Pasture, Rangeland, Forage Vegetation Index policy, it is the responsibility of the insured to certify their acreage by Grid ID in the remarks section of the acreage report. The Acreage Certification must be completed and signed by the insured and must state that the point of reference established for insured acreage is representative of the insured acreage within that Grid ID by crop type and that the amount of acreage assigned to each of the separate Grid

ID (s) is accurate to the best of their knowledge. Separate points of reference must be established for each type of acreage as follows:

- (a) A point of reference must be established for any insured acreage of the crop that is not contiguous.
- (b) In the case of contiguous insured acreage that crosses grid or county lines, a point of reference must be established as follows:
  - 1) If the insured chooses to combine the contiguous acreages of the crop type into one single Grid ID, a single point of reference must be established for all of the contiguous insured acreage.
  - 2) If the insured chooses to separate the contiguous acreage into separate Grid ID's, they must establish the point of reference for each Grid ID
- (c) For each grid the insured elects to insure, they must report by grid:
  - 1) The Grid ID; and
  - 2) The amount of insurable and insured acreage located within or assigned to the grid. Insurable acreage less insured acreage determines uninsured acreage.

For example: If the contiguous acreage is located in four grids and the insured chooses to insure the acreage in separate grids, the acreage can be separated into two, three, or four grids. If the insured selects three grids, they must establish the points of reference for each grid to determine the Grid ID. Insurable and insured acreage located within or assigned to each grid must also be established.
- (d) The same crop cannot be insured in more than one Grid ID or county (except as noted in section 3 (C) (6) (b) of this handbook or the SPOI). The amount of insured acreage will not exceed 100 percent of the policyholder's insurable acreage of the crop types in the county.
- (e) Report all of the insurable and insured acreage by crop type (i.e., grazinglands, or haylands) for each reference Grid ID. The insured must report annually by the acreage report date specified on the Special Provisions of Insurance ALL insurable and insured acreage covered under these Crop Provisions.

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

The Pasture, Rangeland, Forage Vegetation Index acreage reports must contain AT A MINIMUM the requirements found in the FCIC Handbook 24040, Document and Supplemental Standards Handbook (DSSH) plus items noted below.

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

**(1) Total County Insurable Acreage:** the total insurable acreage is reported for county, by crop type.

**(2) Insured Acreage:** All insured acres, to tenths of an acre, for the selected crop type listed in the actuarial document. This includes all insured acreage with a point of reference utilizing Grid ID's located in the county, of the insurable crop, and reported on or before the acreage reporting date. Pasture, Rangeland, Forage Vegetation Index coverage is by county, grid and offer (type and index interval) but multiple counties, grid (s), and offers (types and index intervals) may be reported on a single acreage report, if such a report has been previously approved by the insurance provider.

The insured may choose to insure grazinglands, haylands, or both. The applicant is not required to insure 100% of the crop type (s) chosen in the county; however, if the applicant chooses to insure the crop types under the Pasture, Rangeland, Forage Vegetation Index policy, they cannot insure the same crop under any other FCIC subsidized program (except as noted in section 3 (C) (6) (b) of this handbook **or the SPOI**).

The insured must report annually by the acreage report date specified on the Special Provisions of Insurance ALL insurable and insured acreage covered under these Crop Provisions.

**(3) Insurable Acreage:** Report ALL insurable acreage located within or assigned to a grid with insured acres by share, and crop type, as applicable.

**(4) Insured Share:** Insured's share expressed as a 3 place decimal. Differing Pasture, Rangeland, Forage Vegetation Index insured crop, crop shares, and crop types listed in the SPOI or actuarial documents, as applicable, require separate acreage report line entries. ALL ACREAGE WITH THE SAME SHARE AND INDEX INTERVAL AND CROP TYPE, REGARDLESS OF NAME OF OTHER PERSON(S) SHARING IN THE CROP, CAN BE ENTERED ON A SINGLE LINE OF THE REPORT.

The share of the spouse and dependent children IS TO BE INCLUDED under the named insured's share. (Refer to the GRP Basic Provisions for exceptions).

- (5) **Expected Grid Index:** Expected grid index as listed in the county actuarial documents.
- (6) **Grid Identification (ID):** As shown on the county actuarial documents where the point of reference is established for the insured acreage.
- (7) **Index Interval:** Index interval (i.e. practice code) as listed in the Special Provision of Insurance is recorded as a three-digit number; e.g., index interval code “232” for each line item.

An insured may select more than one index intervals for each Grid ID and crop type, as specified in the Special Provisions of Insurance.

- (8) **Unit Number:** Record as a five-digit number. The insured acreage within or assigned to a Grid ID for each crop type and index interval accounts for a basic 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 crop type and has a 100 percent share. The unit structure will be:

- Unit **00100**, Grazingland, Index Interval II
- Unit **00200**, Grazingland, Index Interval III
- Unit **00100**, Hayland, Index Interval II
- Unit **00200**, Hayland, Index Interval III

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

- (9) **Productivity Factor:** Record the percentage (only whole percents allowed) selected by the insured in decimal format, e.g. 125% reported as 1.25.

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

Insurance providers must perform acreage report reviews **no later than 120-days after the acreage reporting date** for the crop, as listed in the SPOI or after a reduction in acreage as specified in section 7 (e) (6) of the Pasture and Rangeland Forage Vegetation Index Crop Provisions. Acreage report reviews are required for:

- (1) All policies of employees of the insurance provider/FCIC or representatives, adjusters, agents, etc, in which a claim has been paid in the last year;
- (2) All policies for which misrepresentation or concealment of material facts is suspected;
- (3) All policies for which a written application for acreage adjustments are made during the insurance year; and

- (4) **Not less than** a 3-percent random sample for all Pasture, Rangeland, Forage Vegetation Index policies with reported acreage. Where policies have been selected that have multiple GRP crops, 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:

- (1) Actual acres (total of all the crop acres in the county covered by the crop provisions, both insurable and those that are considered uninsurable due to limitations specified in the policy, with a share) of the crop versus insured acreage in the county. Proof of actual acres in the county can be established by the insured 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 or tax document which provides a detailed measurement of acreage).
- (2) Insurable interest/share in the crop. Insured must be able to prove shares by providing acceptable **written** verifiable documentation. Acceptable types of lease/share agreements, or verifiable proof required that a landlord and/or tenant are able to utilize could include but not limited to; hand written documents, invoices, canceled checks, etc.
- (3) Insurability of the insured acreage located within the county, and reported on or before the published acreage reporting date.
- (4) Actual field inspections are required on all policies for which misrepresentation or concealment of material facts is suspected.

## **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 special provisions of insurance, the insurance provider must submit a written summary of its completed Pasture, Rangeland, Forage Vegetation Index acreage report reviews (refer to section 4 F) to the FCIC Compliance Division, Washington, D.C. The summary must identify, separately by category listed in section 4 G, any discrepancies found from that originally reported. Acreage reports are considered to be within tolerance if the premium and indemnity discrepancies for each unit are less than \$250.

## **I. SCHEDULE OF INSURANCE REQUIREMENTS**

Insurance providers will provide each Pasture, Rangeland, Forage Vegetation Index insured a schedule of insurance which must contain AT A MINIMUM the requirements

found in the FCIC Handbook 24040, Document and Supplemental Standards Handbook (DSSH) plus:

- (1) **Insurable Acreage:** Reported gross acres (before share), to tenths of an acre, from the acreage report.
- (2) **Insured Acreage:** Reported acres the insured elected to insure (before share), to tenths of an acre, from the acreage report.
- (3) **Insured's Share:** Insured's share, expressed as a three-place decimal, taken from the acreage report.
- (4) **Grid Identification (ID):** As listed in the county actuarial documents, taken from the acreage report.
- (5) **Index Interval:** Three-digit index interval code (i.e. practice code) shown on the county actuarial document, taken from the acreage report.
- (6) **Trigger Grid Index:** Trigger grid index, calculated by multiplying the expected grid index (shown in the county actuarial documents) by the elected coverage level percent listed on the accepted application.
- (7) **Protection Per Acre:** Gross (before share) dollar amount of protection per acre listed on the accepted application.
- (8) **Policy Protection Per Unit:** Net (after share) dollar amount of protection per unit listed on the accepted application.
- (9) **Protection:** Net (after share) dollar amount of protection.
- (10) **Premium:** Net (after share) dollar amount of premium due.

## **5. INDEMNITY**

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### **A. GENERAL INDEMNITY PAYMENT FORM REQUIREMENTS**

There are no field claims activities or “loss adjustment” for Pasture, Rangeland, Forage Vegetation Index policies, except in the case of man made actions (which may include but is not limited to fire). Pasture, Rangeland, Forage Vegetation Index policy has the following general requirements:

- (1) Indemnity payments must be paid according to the GRP Basic Provisions and Pasture, Rangeland, Forage Vegetation Index Crop Provisions, utilizing the final grid (s) index released by FCIC and the insured's trigger grid index.



- (a) However, losses must be due to natural causes. If the action is determined to be an act of man or intentional (such as, but not limited to fire), 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 followed 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 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 by measuring the boundary 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 fires this will include the upwind, downwind and width points of the burned area,
    - ii. These points can be determined using the aerial photographs on the geo-referenced teraserver web portal developed for the Pasture, Rangeland, Forage Vegetation Index insurance program to assign Grid ID's and determine Point of Reference.
  - 4) The longitude and latitude of the points, in decimal degrees, will be recorded via an action/fire assessment web form and placed onto the Vegetation Index web portal by the FCIC designated web program administrator.
  - 5) Upon submission of the points, a linear point-to-point scribed polygon will be computed by the software which overlays the Vegetation index grids and a list of "impacted" Grid ID's will be extracted.
  - 6) For each selected impacted grid, the computer program will also 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 (Grid ID, crop type, and index interval).
- (3) Insurance providers must make any indemnity payments **within 60 days** of receiving Pasture, Rangeland, Forage Vegetation Index final grid index from FCIC.

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

The insurance provider is to 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) **Insurance Provider's Name:** When not preprinted on the notice of indemnity payment.
- (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) **Name of 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:** Insured's share, expressed as a three-place decimal, taken from the acreage report.
- (8) **Coverage Level:** Two-digit coverage level percent elected by the insured for each county and crop type insured.
- (9) **Crop Type:** Three-digit type code shown on the county actuarial document, taken from the acreage report.
- (10) **Grid Identification (ID):** As listed in the county actuarial documents, taken from the acreage report.
- (11) **Index Interval:** Three-digit index interval code (i.e. practice code) shown on the county actuarial document, taken from the acreage report.

- (12) **Unit Number:** As reported on the acreage report.
- (13) **Dollar Amount of Protection Per Acre:** Insured's dollar amount of protection elected for each crop type.
- (14) **Final Grid Index:** Final grid index, after it is released by FCIC, following the index intervals insured. This index will not be recalculated once the indices are calculated and reported as specified in the Special Provisions of Insurance even though EROS may subsequently revise the gridded NDVI data.
- (15) **Trigger Grid Index:** Trigger grid index, calculated by multiplying the expected grid index (shown in the county actuarial documents) by the elected coverage level percentage listed on the accepted application.
- (16) **Total Indemnity:** Total Pasture, Rangeland, Forage Vegetation Index policy indemnity payment, in whole dollars, for the insured crop in the county, for each unit.
- (17) **Final Payment:** Final indemnity payment in dollars for all Pasture, Rangeland, Forage Vegetation Index policy crops, by unit. This entry is to reflect any reduction for any amount due the company.
- (18) **Check Number and Date:** Actual check number with date of issue; e.g., MM/DD/YYYY.



**Exhibit 1: Pasture, Rangeland, Forage Vegetation Index Forage Worksheet**

1. Insured's Name: \_\_\_\_\_ 2. Date: \_\_\_ / \_\_\_ / \_\_\_ 3. State: \_\_\_\_\_ ( ) 4. County: \_\_\_\_\_ ( )  
 5. Crop Type: \_\_\_\_\_ 6. Coverage Level/Trigger Index: \_\_\_\_\_ 7. Productivity Factor: \_\_\_\_\_ % 8. \$ Amt. of Prot/Ac: \_\_\_\_\_

9. Grid ID	10. Insurable Acreage	11. Insured Acreage	12. Share <small>percentage</small>	13. Index Interval	14. Unit Number	15. % Insured acreage/ Unit <small>percentage</small>	16. Insured acreage/ Unit <small>acres</small>	17. Policy Protection/ Unit <small>dollars</small>	18. Premium Rate/\$100 <small>dollars</small>	19. Premium/ Unit <small>dollars</small>	20. Premium Subsidy Amt <small>dollars</small>	21. Premium Due From Grower <small>dollars</small>
				I								
				II								
				III								
				IV								
				<b>Total</b>								
				I								
				II								
				III								
				IV								
				<b>Total</b>								
				I								
				II								
				III								
				IV								
				<b>Total</b>								
<b>County Totals</b>	<b>10a.</b>	<b>11a.</b>					<b>16a.</b>	<b>17a.</b>		<b>19a.</b>	<b>20a.</b>	<b>21a.</b>

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

## Pasture, Rangeland, Forage Vegetation Index Worksheet Completion Procedures

### A. GENERAL INFORMATION

- (1) The PRF-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 and crop type insured.
- (3) Additional appendices provided in the handbook include:
  - Determining Grid ID(s) and Use of the Website (Appendix C)
  - PRF-VI Example (Appendix D)

### B. WORKSHEET ENTRIES AND COMPLETION INFORMATION

Verify or make the following entries:

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

- |    |  |
|----|--|
| 1. | <b>Insured's Name:</b> Enter the name of the insured that identifies exactly 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 corresponding 2-digit state code.                                      |
| 4. | <b>County:</b> Enter the county in which insurance attaches and the corresponding 3-digit county code.                               |

The PRF-VI Worksheet is provided for acreage in one county. For multiple counties, use a separate worksheet.

- |    |   |
|----|---|
| 5. | <b>Crop Type:</b> Select grazingland or hayland. If the insured is selecting both types available, a separate worksheet should be completed for each crop type. |
|----|---|

Grid ID(s), coverage level, and dollar amount of protection per acre will be selected for each crop type in the county. A separate worksheet should be completed for each crop type selected.

- |    |  |
|----|--|
| 6. | <b>Coverage Level (or Trigger Grid Index):</b> Enter 70, 75, 80, 85, or 90 percent in the space labeled 6. For PRF-VI policies, the insured may select any percentage of coverage shown on the actuarial documents or PRF-VI reports (rates and subsidies) for each crop type. Refer to the PRF-VI Crop Provisions, Special Provisions of Insurance, and GRP Basic Provisions. |
|----|--|

Enter only one level of Coverage for the crop type in the county. The level of coverage selected by the applicant will be applied to each unit (Grid ID, crop type, and index interval).

The expected grid index will always equal 100, so the **Trigger Grid Index:** will equal the coverage level selected. [75 (percent coverage level) x 100 (expected grid index) = 75 (Trigger Grid Index)].

7. **Productivity Factor:** A percentage factor selected by the insured that allows them to individualize their coverage based on the productivity of the grazingland or hayland they produce. A percentage value between 60 and 150 percent should be entered in this space.
8. **Dollar Amount of Protection per Acre:** Defined as: *the county base value per acre specified in the actuarial documents for each crop type multiplied by the coverage level selected by you, and multiplied by the productivity factor selected by you.*

County base value x coverage level selected (#6) x productivity factor selected (#7). Enter the result in item 8.

Example: dollar amount of protection per acre = county base value per acre (\$20.00), times the coverage level selected (90), times productivity factor selected 120%. (\$20.00 x .90 = \$18) (\$18 x 120% = \$21.60).

Enter only one Dollar Amount of Protection per Acre for each crop type in the county. You may select **only one** coverage level and corresponding dollar amount of protection per acre for each of the insured crop types in the county. The dollar amount of protection per acre selected will be applied to each Grid ID and crop type.

9. **Grid ID (s):** Enter the specific number(s) associated with each grid (established by FCIC utilizing gridded data from EROS), that will be contained on the summary of coverage

See Appendix C for instructions on obtaining the applicable Grid ID(s) for the insured's acreage.

10. **Insurable Acreage:** Enter the amount of Insurable acreage (*will consist of the total number of acres suitable for insurance under these crop provisions which would include both insured acreage and acres of the crop type that are not insured*) for each Grid ID, Total the amount of insurable acreage in the space labeled 10a.
11. **Insured Acreage:** Enter the number of insured acreage for each Grid ID. Total the number of acres in the space labeled 11a.
12. **Share:** Enter the applicable share, as a percentage, for each Crop Type, and Grid ID combination.

13. **Index Interval:** Enter the code(s) associated with each Index Interval. The codes can be found in the Special Provisions of Insurance.
14. **Unit Number:** Assign a unit number for each crop type and Index Interval for each Grid ID. For example: Grid 1 has two different intervals insured – units = 00100, 00200; Grid 2 has three different intervals insured – units = 00100, 00200, 00300.
15. **Percentage of Insured Acreage by Index Interval:** The insured may designate a specific percentage of the insured acreage to more than one index interval (index interval are designated as Roman numerals in the worksheet i.e. I = Index Interval I...IV = Index Interval IV) for each Grid ID and crop type. The sum of all the percentages (shown in red in the “Total” row) for each Grid ID must equal 100%.

The percentage of insured acres required in any one index interval (Index Interval I through VI) is further defined in the Special Provisions of Insurance.

16. **Amount of Insured Acreage by Index Interval:** For each index interval, enter the result of multiplying the percentage of insured acreage per index interval (item row 13) x the insured acreage for each Grid ID (item row 11). Total the index interval by Grid ID and enter the sum in the “Total” row. The Total row of all insured acreage/index interval for each Grid ID must equal the total insured acres by Grid ID (item row 11).

The minimum percentage of acreage required in any one index interval (Index Interval I through IV) is further defined in the Special Provisions of Insurance.

17. **Policy Protection per unit:** For each index interval, enter the result of the Dollar Amount of Protection per Acre (item 8) x number of insured acreage/index interval (item row 16) x the share (item row 12.).

**The Policy Protection** - will equal the sum of all the insured’s policy protection per units; enter this value in item 17a.

18. **Premium Rate/ \$100 of Insurance:** Enter the premium rate for each Grid ID, crop type, and index interval. Refer to the premium rate tables available from your insurance provider or the PRF-VI Coverage, Rate and Index Reports, to find the applicable premium rate.
19. **Premium per Unit:** Enter the result of the dollar amount of protection per acre (item 8) x number of insured acreage per unit (item row 16 x premium rate (item row 18) x adjustment factor of 0.01 x share (item row 12), for each index interval/unit (Grid ID, crop type, and Index interval).

Total policy premium (each index interval) equals the sum of the premiums for each unit. Enter the result in 19a.

20. **Premium Subsidy per Unit:** Enter the result of the Premium per Unit (item 19) for each index interval/unit x the applicable Subsidy Percentage. Refer to the subsidy tables



provided in the Pasture, Rangeland, Forage Coverage, Rate and Index Reports to find the applicable Subsidy Percentage. The subsidy allowed is determined by the level of coverage selected by the applicant.

Total premium subsidy (each index interval/unit) equals the sum of the premium subsidy for each unit. Enter the result in 20a.

21. **Producer Premium per Unit:** Enter the result of the Premium per unit (item row 19) minus the Premium subsidy per unit (item row 20) for each index interval/unit (Grid ID, crop type, Index interval).

Total Producer Premium equals the sum of all the producer premiums per unit for each index interval. Enter the result in item 21a.

**Exhibit 2: Pasture, Rangeland, Forage Vegetation Index Policy Disclaimer**

YOU NEED TO UNDERSTAND THE FOLLOWING:

- THIS IS NOT A PLAN OF INSURANCE AGAINST INDIVIDUAL LOSS. THE TERMS AND CONDITIONS OF THIS PLAN ARE DIFFERENT FROM THOSE OF THE 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.

- YOU MAY HAVE A LOW NDVI VALUE OR INDEX ON YOUR FARM AND NOT RECEIVE PAYMENT UNDER THE PASTURE, RANGELAND, FORAGE VEGETATION INDEX POLICY. THIS PROGRAM IS BASED UPON GRID INDICES, NOT INDIVIDUAL FARM YIELDS, OR TOTALS. THE ONLY INSURABLE CAUSE OF LOSS UNDER THIS POLICY IS WHEN THE FINAL GRID INDEX IS LESS THAN YOUR TRIGGER GRID INDEX.

- YOU SHOULD CONTINUE TO MAINTAIN ANY AND ALL OF YOUR PRODUCTION RECORDS IN CASE YOU WISH TO PURCHASE AN ACTUAL PRODUCTION HISTORY PLAN OF MULTIPLE PERIL CROP INSURANCE IN FUTURE YEARS, e.g. APH FORAGE PRODUCTION.

I understand the terms of the Common Pasture, Rangeland, Forage Vegetation Index Policy Basic Provisions and Crop Provisions. I am aware that I cannot obtain another plan of insurance in a county, if available, on crops insured under the Pasture, Rangeland, Forage Vegetation Index plan of insurance with the exception of AGR and AGR Lite (if available) or in accordance with the Special Provisions of Insurance. I have read and fully understand this Group Risk Disclaimer.

INSURED \_\_\_\_\_

AGENT \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

## **Appendix A: Determining Grid ID(s) and Use of the Website**

### **Introduction**

As stated in the Pasture, Rangeland, Forage (PRF) Vegetation Index policy 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 sales closing 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.

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 button at the bottom right hand corner of the page) 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 Appendix.

### **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 PRF Vegetation Index are located at the PRF gateway page, <http://www.rma.usda.gov/policies/pasturerangeforage>, 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 PRF gateway page under Vegetation Index. The web address for the tool is <http://prfvi-rma-map.tamu.edu>. This link brings you to the default page for the map driven Grid ID locator for the PRF Vegetation Index pilot program.

The following screen is displayed, which is the default topo map:

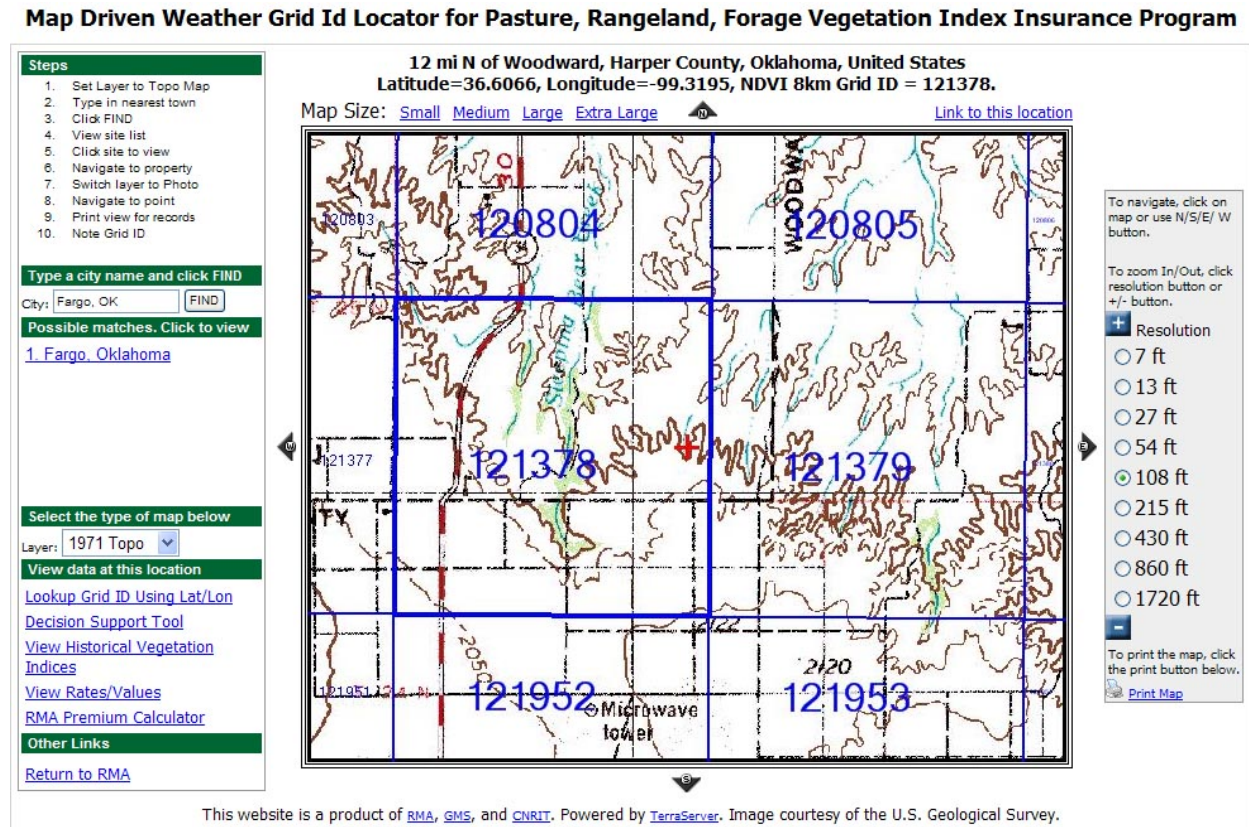


Figure 1. Establish Reference Point and Grid ID Default Page, Topo Map

## Description of the Screen

The middle of the screen displays the topo map (Figure 1). The map size can be changed by clicking on the “Small”, “Medium”, “Large”, or “Extra Large” link located directly above the map. For purposes of these directions, a small map is displayed.

Within the map, the red ‘+’ represents the current location and the point where information is collected. Above the map, the state and county of the red ‘+’ is listed. In addition, the latitude and longitude coordinates and the Vegetation Grid ID’s are provided.

The goal is to position the red ‘+’ over the most representative location of the insured’s acreage, also known as the point of reference. As defined in the policy, a point of reference is: - “A designated point, identifiable by longitude and latitude, selected by you in the grid that contains the best representation of the insured acreage covered under these Crop Provisions.”

The red ‘+’ can be moved by either clicking on the map or by clicking on the N, S, E, or W arrow buttons located around the perimeter of the map. To the right of the map, the resolution of the map can be increased or decreased. By increasing the resolution, or clicking on a smaller number, the map will zoom to a more exact location. Decreasing the resolution will expand the map, including a larger area.

Directly overlaying the map, square grids, outlined by a blue line, give an approximate visual representation of where the Grid IDs are located. For instance, on the default map shown, the red '+' is located just inside of Grid ID #121378. The Grid ID where the red '+' is located can be confirmed by looking above the map where the Vegetation Index Grid ID is listed.

The map can be printed at any time by clicking the "Print Map" icon located at the bottom right hand corner of the screen. It is recommended that a map be printed with each point of reference on an insured policy for verification purposes.

### Menu Options

Along the left side of the screen, there is a list of menu options. The options and their descriptions are as follows:

<p><b>Steps</b></p> <ol style="list-style-type: none"> <li>1. Set Layer to Topo Map</li> <li>2. Type in nearest town</li> <li>3. Click FIND</li> <li>4. View site list</li> <li>5. Click site to view</li> <li>6. Navigate to property</li> <li>7. Switch layer to Photo</li> <li>8. Navigate to point</li> <li>9. Print view for records</li> <li>10. Note Grid ID</li> </ol>	<p>← Lists the ten basic steps to determine the Grid ID. Conveniently located on the screen at all times.</p>
<p>Type a city name and click FIND</p>	
<p>City: <input type="text" value="College Station"/> <input type="button" value="FIND"/></p>	<p>← Search function of a nearby city to the insured acreage. After the city or county is typed in, click "Find".</p>
<p>Possible matches. Click to view</p>	
<p><a href="#">1. College Station, Arkansas</a>  <a href="#">2. College Station, Texas</a>  <a href="#">3. College Station, Florida</a></p>	<p>← If more than one city is returned, a list of possible matches is given. Click on the correct city and state combination link to view the correct map.</p>
<p>Select the type of map below</p>	
<p>Layer <input type="text" value="1974 Topo"/> <input type="button" value="▼"/></p>	<p>← Shows the type of map being displayed. In the drop down box (found by clicking on the gray arrow) the map type can be changed to topo or photo. It is usually easier to begin with a topo map.</p>
<p>View data at this location</p>	
<p><a href="#">Lookup Grid ID Using Lat/Lon Decision Support Tool</a>  <a href="#">View Historical Vegetation Indices</a>  <a href="#">View Rates/Values</a>  <a href="#">RMA Premium Calculator</a></p>	<p>← This section on the page will provide access to additional data sets available for the PRFVI insurance program. To access the data, click on the link.</p>
<p>Click the link below to return</p>	
<p><a href="#">Return to RMA</a></p>	



## The Photo Map (Layer)

As previously mentioned, there are two map types available to assist the applicant in locating their property. The first type, the topo map, was previously displayed. The second type, the photo map, displays detail, which helps the applicant identify landmarks on their property. As with the topo map, the Grid IDs are identified with a blue line and the Grid ID's are identified on the map in yellow. The point of reference is shown with a yellow '+'. Again the map can be resized to assist in the viewing and the locations of the gridlines.

### Map Driven Weather Grid Id Locator for Pasture, Rangeland, Forage Vegetation Index Insurance Program

The screenshot displays a web application interface for locating weather grid IDs. On the left, a sidebar contains a 'Steps' list, a search field with 'Fargo, OK' entered, and various utility links. The main area features a satellite-style photo map of a rural landscape. A vertical blue line represents a grid boundary, with yellow text labels '121378' and '121379' on either side. A yellow '+' symbol is positioned on the grid line. Above the map, text indicates the location: '12 mi N of Woodward, Harper County, Oklahoma, United States' and 'Latitude=36.6066, Longitude=-99.3195, NDVI 8km Grid ID = 121378'. A 'Map Size' selector is set to 'Medium', and a 'Link to this location' is provided. On the right, a 'Resolution' menu is set to '13 ft', and a 'Print Map' button is visible. At the bottom, a footer states: 'This website is a product of RMA, GMS, and CNRIT. Powered by TerraServer. Image courtesy of the U.S. Geological Survey.'

Figure 2. Photo 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 to 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 name where the property is located (if no response is provided for the selected city, select a larger city near the property).

- Step 2 Select the city or county from the possible matches available on the display. By clicking on the link, a topo map for the area will be displayed.
- Step 3 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 clicking on the *N*, *S*, *E*, or *W* arrows located around the perimeters of the screen. The area can be refined even further by increasing the resolution of the map.
- Step 4 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 the photo maps.
- Step 5 Using the topo map, photo map, or combination of both, the applicant needs to navigate around the maps and choose an appropriate size of view that allows for proper identification of the property boundaries and the corresponding Grid ID(s).

If an insured wishes to determine the location of acreage and Grid ID(s) by utilizing Latitude and Longitude, click on the link under **Vegetation Index** which reads **Grid ID Locator - 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 have been 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 following table 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 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 choose 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 grid and county, use the five Basic Steps previously listed to locate the insured’s acreage and conduct the following steps:

Step 6           The insured must then pick **one** point of reference on the property by moving the red (or yellow, depending on the type of map being viewed) ‘+’ to that location. The Vegetation Index Grid ID listed at the top of the screen (and on the map itself) will be the Grid ID used in the policy.

Step 7           Click on the Print Icon in the lower right hand corner of 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 8           The insured must certify that the point of reference chosen is the best representation of the insured acreage that can be determined.

For example, as shown in Figure 3, 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.



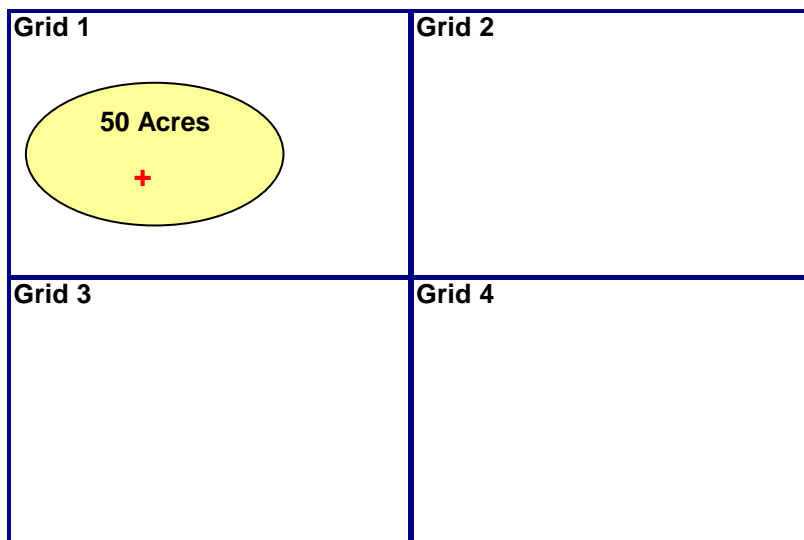


Figure 3. Contiguous Acreage - One Grid

## (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 five Basic Steps listed above to find the insured's acreage and add the following steps:

- Step 6            The insured must then pick **one** point of reference in the contiguous acreage by moving the red + to that location. The Vegetation Grid ID listed at the top of the screen (and in yellow on the map itself) will be the Grid ID used in the policy.
  
- Step 7            Click on the Print Icon in the lower right hand corner of 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 8            The insured must certify that the point of reference chosen is the best representation of the insured acreage that can be determined.

For example, in Figure 4 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 to represent 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.

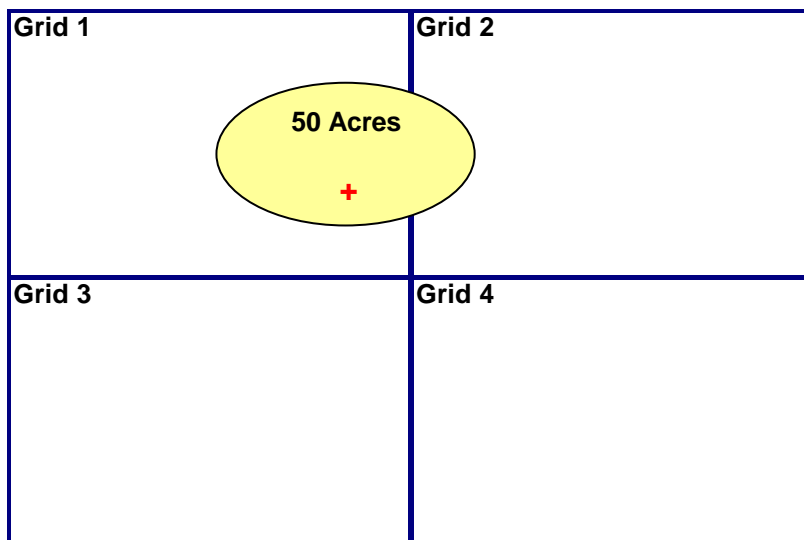


Figure 4. Contiguous Acreage - Multiple Grids (Combined)

### (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 reference point 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 five Basic Steps previously listed to locate the insured's acreage and add the following steps:

- Step 6            The insured must then pick **one** point of reference in each Grid by moving the red '+' to that location. The Vegetation Grid ID listed at the top of the screen (and in yellow on the map itself) will be the Grid ID used in the policy.
- Step 7            Click on the Print Icon in the lower right hand corn of 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 8            The insured must certify that the point of reference chosen is the best representation of the acreage that can be determined.
- Step 9            The insured must certify and assign the approximate amount of insured acreage in each grid.

**Steps 6 through 9 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 5, 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.

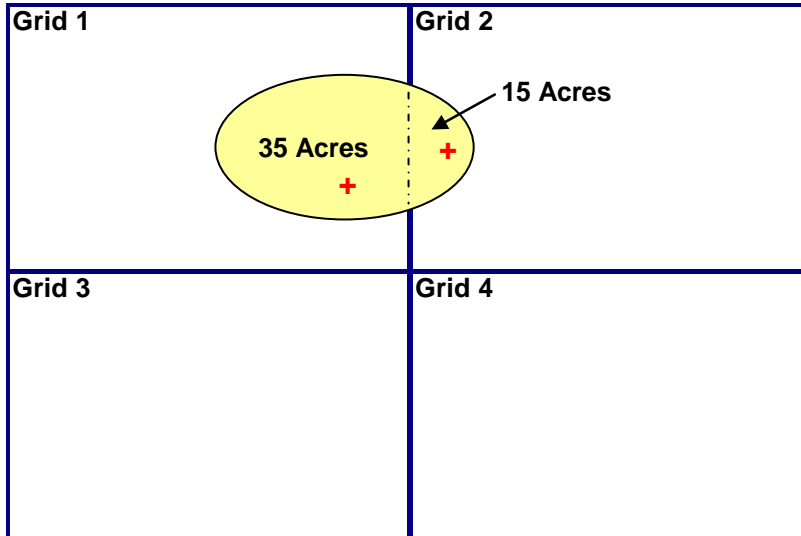


Figure 5. Contiguous Acreage - Multiple Grids (Separated)

### **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 6, 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.

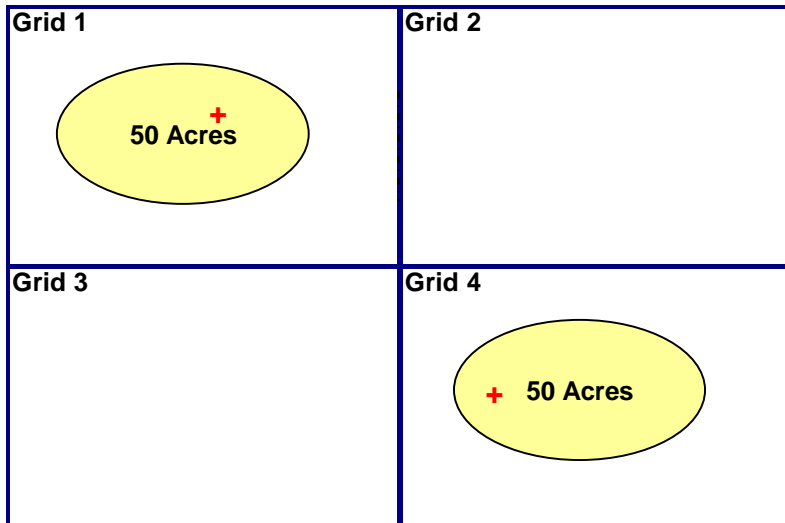


Figure 6. Non-contiguous Acreage Located in Separate Grids

In Figure 7, 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.

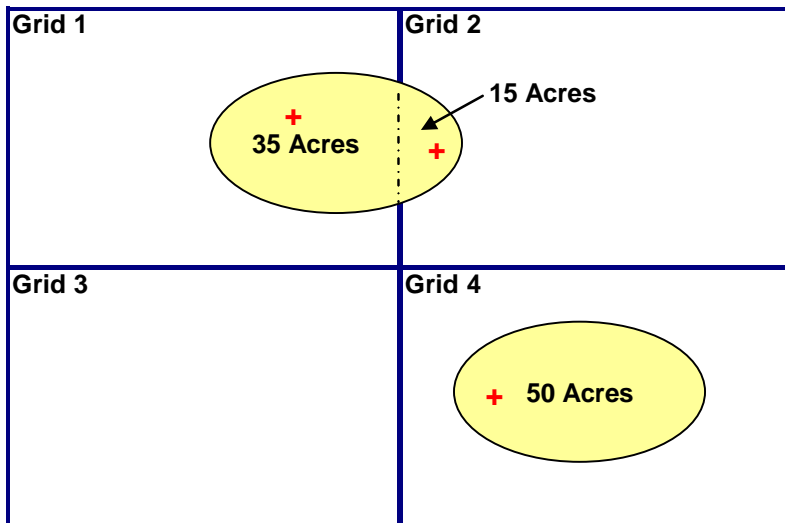


Figure 7. Non-contiguous Acreage in Different Grids

As illustrated in Figure 8, if the non-contiguous acreage is located in the same grid, the non-contiguous acreage will be combined and given a single Grid ID.

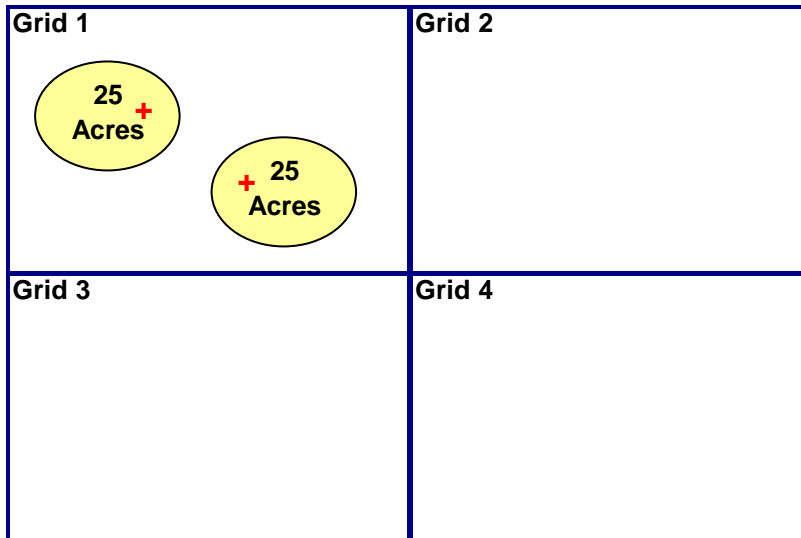


Figure 8. Non-contiguous Acreage in the Same Grid

### Other Links on the Website

In addition to the link described above, there are additional links on the Pasture, Rangeland, Forage webpage 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 PRF-VI Pilot Program. Once a link is selected, follow the on line options to view the information desired.

## Appendix B: 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.

### 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 Appendix A). His properties are illustrated below in Figure 9.

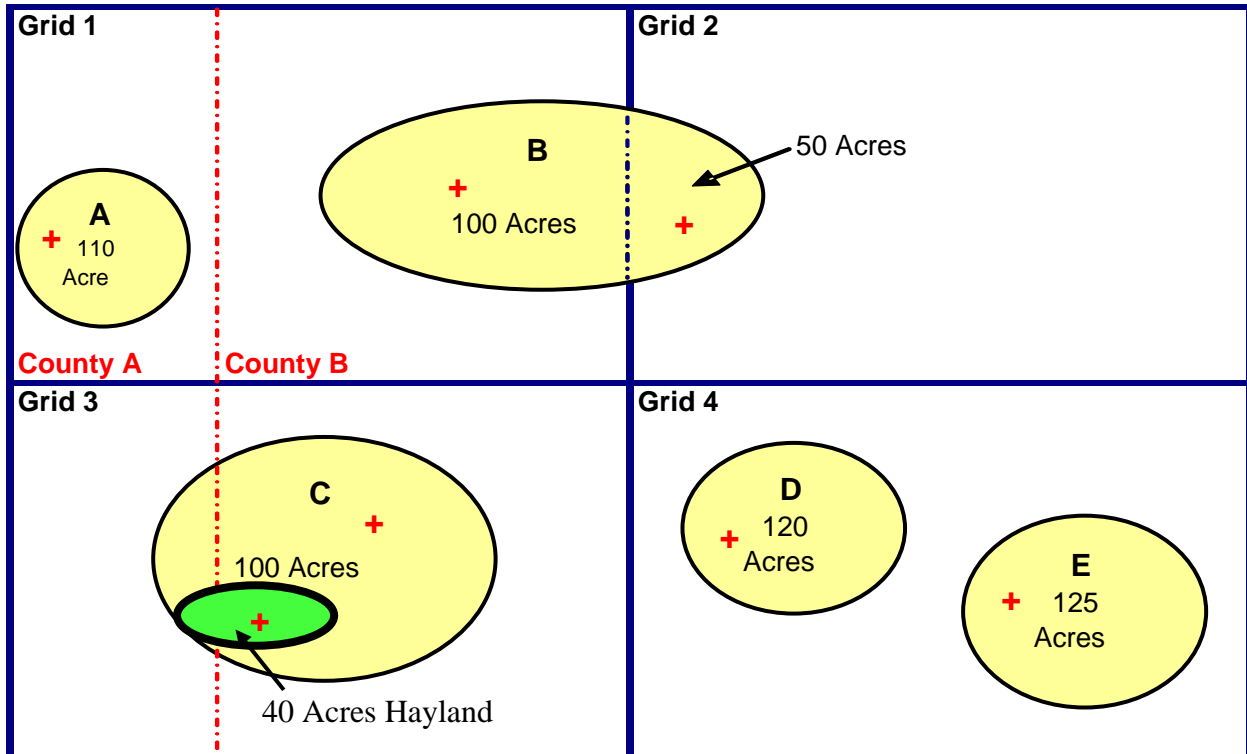


Figure 9. Joe Rancher's Properties

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 representative of 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 representative of 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.

**Decision:**

Joe Rancher combines Properties D and E and insures all 245 acres under Grid ID 4. He picks a reference point and certifies that it is representative of the 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.

**Productivity Factor**

Joe Rancher chooses a productivity factor of 120 percent. The productivity 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 may be between 60 and 150 percent. Only one productivity 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 productivity factor percentage selected. Joe Rancher’s Dollar Amount of Protection per Acre is calculated as follows:

$$\begin{aligned}
\$ \text{ Amt of Protection per Acre} &= \text{county base value} \times \text{coverage level selected} \times \text{productivity factor selected} \\
&= \$17.65 \times .85 \times 1.20 \\
&= \$18.00 \text{ per Acre}
\end{aligned}$$



## 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), 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.

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):

<b>Grid ID</b>	<b>Index Interval</b>	<b>Unit Number</b>	<b>% Protection</b>	<b>Number of acres</b>
<b>Grid 1</b>  <b>Insured acreage = 100</b>	I	00100	100%	100 ac
	II			
	III			
	IV			
	<b>Total</b>		<b>100%</b>	<b>100 ac</b>
<b>Grid 2</b>  <b>Insured acreage = 50</b>	I	00100	10%	5 ac
	II	00200	50%	25 ac
	III			
	IV	00300	40%	20ac
	<b>Total</b>		<b>100%</b>	<b>50 ac</b>
<b>Grid 3</b>  <b>Insured acreage = 100</b>	I	00100	50%	50 ac
	II			
	III			
	IV	00200	50%	50 ac
	<b>Total</b>		<b>100%</b>	<b>100 ac</b>
<b>Grid 4</b>  <b>Insured acreage = 245</b>	I	00100	50%	122.5 ac
	II	00200	30%	73.5 ac
	III	00300	20%	49 ac
	IV			
	<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, and index interval), 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	I (\$18.00 X 100ac X 1.0)	00100	\$1,800
	II		
	III		
	IV		
<b>Grid 2</b> Insured acreage = 50 100% share	I (\$18.00 X 5ac X 1.0)	00100	\$90
	II (\$18.00 X 25ac X 1.0)	00200	\$450
	III		
	IV (\$18.00 X 20ac X 1.0)	00300	\$360
<b>Grid 3</b> Insured acreage = 100 50% share	I (\$18.00 X 50ac X 0.50)	00100	\$450
	II		
	III		
	IV (\$18.00 X 50ac X 0.50)	00200	\$450
<b>Grid 4</b> Insured acreage = 245 100% share	I (\$18.00 X 122.5ac X 1.0)	00100	\$2,205
	II (\$18.00 X 73.5ac X 1.0)	00200	\$1,323
	III (\$18.00 X 49ac X 1.0)	00300	\$882
	IV		
<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 Pasture, Rangeland, Forage Vegetation 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
<b>Grid 1</b>	I	00100	\$12.00
	II		
	III		
	IV		
<b>Grid 2</b>	I	00100	\$13.50
	II	00200	\$13.00
	III		
	IV	00300	\$12.00
<b>Grid 3</b>	I	00100	\$13.00
	II		
	III		
	IV	00200	\$12.00
<b>Grid 4</b>	I	00100	\$13.00
	II	00200	\$14.00
	III	00300	\$15.00
	IV		

**Premium/Unit (Index interval)**

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

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

For example, in Grid 1, his Premium for Index Interval I would be calculated as follows:

$$\begin{aligned} \text{Total Premium by Grid 1, Index Interval I} &= \$18.00 (\$ \text{ amt of protection per unit}) \\ & \quad x 100 \text{ insured acres} \\ & \quad x 12.00 (\text{premium rate}) \\ & \quad x 0.01 (\text{adjustment factor}) \\ & \quad x 1.0 (\text{share}) \\ &= \mathbf{\$216.00} \end{aligned}$$

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
<b>Grid 1</b>	100ac 100% share	I	00100	(\$18.00 x 100 ac x 1.0 share) = \$1,800	\$12.00	\$216
		II				
		III				
		IV				
		<b>Total</b>			<b>\$1,800.00</b>	
<b>Grid 2</b>	50ac 100% share	I	00100	\$90.00	\$13.50	\$12
		II	00200	\$450.00	\$13.00	\$59
		III				
		IV	00300	\$360.00	\$12.00	\$43
		<b>Total</b>			<b>\$900.00</b>	
<b>Grid 3</b>	100ac 50% share	I	00100	\$450.00	\$13.00	\$59
		II				
		III				
		IV	00200	\$450.00	\$12.00	\$54
		<b>Total</b>			<b>\$900.00</b>	
<b>Grid 4</b>	245ac 100% share	I	00100	\$2,205.00	\$13.00	\$287
		II	00200	\$1,323.00	\$14.00	\$185
		III	00300	\$882.00	\$15.00	\$132
		IV				
		<b>Total</b>			<b>\$4,410.00</b>	
<b>Grand Totals</b>				<b>\$8,010</b>		<b>\$1,047</b>

The sum of all the premiums by index interval 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 59%.

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:

$$\text{Premium subsidy per unit} = \text{Premium per unit} \times \text{subsidy rate}$$

$$\begin{aligned} \text{Example} &= \$216 \times 0.59 \\ &= \$127 \end{aligned}$$

## 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:

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

$$\begin{aligned} \text{Example Premium Due} &= \$216 - \$127 \\ &= \$89 \end{aligned}$$

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.

<b>Grid ID</b>	<b>Index Interval</b>	<b>Unit Number</b>	<b>Premiums</b>	<b>Premium Subsidy</b>	<b>Producer Premium</b>
<b>Grid 1</b>	I	00100	\$216	\$127	\$89
	II				
	III				
	IV				
<b>Grid 2</b>	I	00100	\$12	\$7	\$5
	II	00200	\$59	\$35	\$24
	III				
	IV	00300	\$43	\$25	\$18
<b>Grid 3</b>	I	00100	\$59	\$35	\$24
	II				
	III				
	IV	00200	\$54	\$32	\$22
<b>Grid 4</b>	I	00100	\$287	\$169	\$118
	II	00200	\$185	\$109	\$76
	III	00300	\$132	\$78	\$54
	IV				
<b>Totals</b>			<b>\$1,047</b>	<b>\$617</b>	<b>\$430</b>

### **Pasture, Rangeland, Forage Vegetation Index Worksheet**

To see how all of the above sections tie in together, Joe Rancher and his agent take all of the information they have accumulated at this point and enter it into the Pasture, Rangeland, Forage Vegetation Index Worksheet. 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	I	00100	120	Above
	II			
	III			
	IV			
Grid 2	I	00100	110	Above
	II	00200	90	Above
	III			
	IV	00300	70	<b>Below</b>
Grid 3	I	00100	110	Above
	II			
	III			
	IV	00200	60	<b>Below</b>
Grid 4	I	00100	120	Above
	II	00200	70	<b>Below</b>
	III	00300	60	<b>Below</b>
	IV			

## 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 precipitation 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

**Index interval I:** The Final Grid Index of 120 is above the Trigger Grid Index of 85. No indemnity is due.

### Grid 2 – 50 Acres

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

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

**Index Interval IV:** 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**

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

**Index Interval IV:** 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**

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

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

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

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

**Index Interval III:** 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 C: FSA Decision on NAP**

### **RMA PRF Vegetation Index (VI) pilot program**

Producers whose crop is eligible for RMA PRF utilizing the vegetative index are required to elect either PRF vegetative index policy or NAP because all perils are covered by both products.

Producers could obtain NAP on grazing crop and RMA PRF on forage crop, or vice versa, because they are considered separate crops by both RMA and NAP.