

# AYP

## Area Yield Protection (04)



Subsidiary of Sompo Holdings, Inc.

armt.com

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### Overview

Area Yield Protection (AYP) is based on the experience of the county rather than the individual farms. AYP indemnifies the insured in the event the final county yield falls below the insured's trigger yield.

The Federal Crop Insurance Corporation (FCIC) issues the final county yield in the calendar year following the crop year insured. Since this plan is based on county yields and not individual yields, the insured may have a low yield on their farm and not receive payment under AYP.

Area Yield Protection is a part of Area Risk Protection Insurance, or ARPI. ARPI replaces the Group Risk Plan (GRP) and Group Risk Income Protection (GRIP).

### Availability

AYP is available for barley, corn, cotton, grain sorghum, soybeans, wheat, forage, peanuts, and rice.

### Data Collection

GRP and GRIP used USDA National Agricultural Statistics Service (NASS) data as the sole source for establishing expected county yields and in most cases for determining final county yields. ARPI includes provisions to allow RMA the ability to use data from any one of several sources. These data sources can include crop insurance data, NASS data, and or other data sources. This variety will help address the issue of RMA removing area-based insurance offers due to a lack of data for certain crops in certain areas.

## Coverage and Protection Factor

The producer must select the same plan of insurance for all acreage of the insured crop/county. Any coverage level may be selected as shown on the actuarial documents for each crop, type, and practice.

Previously, a 1.5 multiplier was offered but it is no longer available. ARPI now has a 'protection factor' (PF) between 0.8 and 1.2, which is used to calculate the dollar amount of protection/guarantee.

A producer may choose a different protection factor for each crop, type, and practice.

### Liability Calculation

Multiply the dollar amount of insurance by the number of acres insured and then by share. (See page 2 for additional information and example).

Expected County Yield X  
Projected Price X  
Protection Factor (0.8 to 1.2) =  
Dollar Amount of Insurance

Then:  
Dollar Amount of Insurance X  
Acres X  
Share  
= Policy Protection

### Producer's Responsibility

ARPI includes provisions that require production reporting by a production reporting date at the conclusion of the current insurance year. The data collected via this production reporting assists in accurate and efficient operation of the area-based program. The requirements will add some administrative burden and costs to producers and insurance providers to maintain and submit production records that were not required under GRP and GRIP.

### Advantages of Risk Management Tools

Management of yield and price risk through the purchase of crop insurance transfers risk from you to others. Crop insurance protects crop investment, borrowed capital, and current savings. Crop insurance also provides collateral to lending institutions, stabilizes income, and provides an added peace of mind.

**This summary is for general illustration purposes only.**

For more information, consult your crop insurance agent to obtain specific information regarding practices, options, planting dates, and other deadlines. Read the Policy Provisions before making your decision on any crop insurance product. Policy Provisions are available from your insurance agent.

## Calculation Example

Producer A farms 100 acres in county X and has a 100 percent share, or 1.000, in those acres. From the actuarial documents in county X, Producer A elects the 75 percent coverage level and a protection factor of 110 percent or 1.10. The actuarial documents in county X also show that the expected county yield is 141.4 bushels per acre, the projected price is \$4.00, and the expected county revenue is \$565.60. The subsidy factor for the 75 percent coverage level is .55 for revenue coverage and .59 for yield coverage. The loss limit factor is 18 percent or .18. At the end of the insurance period, for county X, FCIC releases a harvest price of \$4.57 and a final county yield for county X of 75.0 bushels. The premium rate is based on the published volatility factor and for this example is .0116 for Area Yield Protection.

Step 1: Calculate the Dollar Amount of Insurance per Acre (Expected county yield times projected price times protection factor equals dollar amount of insurance)

$$141.4 \text{ bushels} \times \$4.00 \times 1.10 = \$622.16 \text{ dollar amount of insurance per acre}$$

Step 2: Calculate the Policy Protection (Dollar amount of insurance per acre times acres times share = policy protection)

$$\$622.16 \times 100.0 \times 1.000 = \$62,216 \text{ policy protection}$$

Step 3: Calculate the Total Premium (Policy protection times premium rate equals total premium)

$$\$62,216 \times .0116 \text{ rate} = \$722 \text{ total premium}$$

Step 4: Calculate the Subsidy amount (Total premium times subsidy factor equals subsidy)

$$\$722 \times .59 \text{ subsidy factor} = \$426 \text{ subsidy}$$

Step 5: Calculate the Producer Premium (Total premium minus subsidy equals producer premium)

$$\$722 - \$426 = \$296 \text{ producer premium}$$

Step 6: Calculate the Final Policy Protection (Use the policy protection amount calculated at the beginning of the insurance period in Step 2)

$$\$62,216 \text{ policy protection}$$

Step 7: Calculate the Trigger Yield (Expected county yield times coverage level equals trigger yield)

$$141.4 \text{ bushels} \times .75 = 106.1 \text{ bushels}$$

Step 8: Calculate the Payment Factor ((Trigger yield minus final county yield) divided by (trigger yield minus (expected county yield times loss limit factor)) equals payment factor)

$$(106.1 \text{ bushels} - 75.0 \text{ bushels}) \div (106.1 \text{ bushels} - (141.4 \text{ bushels} \times .18)) = .386$$

Step 9: Calculate the Indemnity (Final policy protection times payment factor equals indemnity)

$$\$62,216 \times .386 = \$24,015 \text{ Indemnity}$$