Actual Production History and Insurance Units for Multiple Peril Crop Insurance

The first step in developing a crop risk management program for a farm is to establish the proven yield and unit structure. The **Actual Production History** (APH) is used to set the guarantees under all of the FCIC-backed insurance plans except the Group Risk Plan (GRP). True risk protection must be based on the farm's own production potential. Providing historical yield records is the most realistic method of estimating it.

Actual Production History

Proving an APH yield requires records for a minimum of four years and a maximum of ten years for each insurance unit. Information used to prove crop yields can include sale receipts, farm or commercial storage records, and feed consumption records. The records must be for continuous years, starting with the most recent year and continuing back in time. Once a missing year is reached, no history prior to that date may be used. For example, if a producer has nine years of production records spanning a ten-year period, only the years after the missing one are counted. Dropping out a yield from one year because of poor production in that year is not allowed. An exception is made if the crop being insured was not planted in a certain year. In that case a zero acreage report is submitted and continuous records are maintained even without data for that year. This is important for growers who rotate crops and those who have summer fallow acres that are normally not planted to the same crop continuously.

Transition Yield

If at least four successive years of records are not available, a **transition** or **"T" yield** for each missing year must be substituted. Each county has a different T yield. It is based on the historical county average yield for the past 10 years. Growers with no records at all are assigned 65 percent of the T yield as their APH yield (Example 1). Growers with a record for one year receive 80 percent of the T yield for the other three years. With two records they receive 90 percent of the T yield, and with three records they receive 100 percent of the T yield for the one remaining year needed to calculate the APH. Once each year has been assigned a yield the APH is just a simple average of the four yields.

If only a few years of yield records exist the APH yield may be considerably below the actual expected yield, because of the reduced T yields. In that case, buying a GRP policy may be a good strategy, since GRP guarantees are based on county yields rather than individual farm yields. This could provide a higher level of protection while building records to establish an APH yield. See ISU Extension publication FM-1850, *Group Risk Plan and Group Risk Income Protection*, for more information.

A new farmer or one who has never planted the crop to be insured will receive 100 percent of the T yield for the APH. If he/she continues to plant the crop for four years, the T yields will be replaced with the actual production each year. New producers who have previously been closely associated with farming a particular unit, such as children taking over a family farm, can use the previous operator's records to establish an APH yield.

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Once four years or more of production history are available the APH is the simple average of all of the yearly reported yields. The four years of history will eventually build to ten years. After ten years of history are reached, the APH becomes a moving ten-year average yield. As each new year of production history is added the oldest record is dropped out of the calculation.

Example 1. Calculating an APH Yield

This is how the APH yield would be calculated for a farm in a county with a transitional "T" yield of 120 bushels.

	4 Years of Records	3 Years of Records	2 Years of Records	1 Year of Records	No Records
Year 1	145 bu.	120 bu. x100% = 120 bu.	120 bu. x 90% = 108 bu.	120 bu. x 80% = 96 bu.	120 bu. x 65% = 78 bu.
Year 2	98 bu.	98 bu.	120 bu. x 90% = 108 bu.	120 bu. x 80% = 96 bu.	120 bu. x 65% = 78 bu.
Year 3	117 bu.	117 bu.	117 bu.	120 bu. x 80% = 96 bu.	120 bu. x 65% = 78 bu.
Year 4	138 bu.	138 bu.	138 bu.	138 bu.	120 bu. x 65% = 78 bu.
APH Yield	124.5 bu.	118.25 bu.	117.75 bu.	106.5 bu.	78.0 bu.

Cup, Cap and Floor

When a new yield record is added to the APH history, the APH has a "cup" of ten percent, that is, the proven yield is not allowed to decline by more than ten percent in one year. Likewise, when a bumper crop record is added, the APH cannot increase by more than a "cap" of 20 percent in one year. A bumper crop yield will eventually work its way completely into the average because the following year the APH can again increase up to 20 percent.

The APH also has a "floor" equal to 70 percent of the T yield for growers with only a one-year record. Growers with two to four years of yield records have a floor equal to 75 percent of the T yield, while growers with five or more yield records have an 80 percent of T yield floor. This prevents a year in which a producer has a severe crop failure from having a disproportionately large influence on the APH yield, especially when only a few years of yield records are available.

Producers can also request that a low yield for a particular year be replaced with a yield equal to 60 percent of the county T yield. In effect, this becomes the minimum reported yield. This adjustment can be requested for any past year used to calculate the APH yield.

Although the APH yield is usually just a simple average of the production history for each insurance unit, a grower who enters farming, adds new land, plants a new crop, produces a bumper crop or has a crop failure can cause one or more of the special provisions to be implemented. That is why it is a good idea to establish the APH for each insurance unit with a licensed crop insurance agent long before the sign-up date. Even for the CAT level of coverage an APH value for each farm units is needed. It will also allow higher levels of coverage under one of the available revenue insurance contracts.

Insurance Units

Each parcel of land that is insured independently of other parcels is called a "unit." One farming operation may have several insurance units. It is possible to be hailed out on one unit and receive an indemnity payment, while other units on the same

farm produce a record crop. As a result, many farmers like to divide their land into as many units as possible. Of course, this may result in higher premiums on each one.

Producers can designate a **basic unit** for all tracts of land they own or cash rent within a county. They also receive one basic unit for all of the land they share rent with a different landlord. For example, if a crop is planted on land rented under a crop share lease with Mr. Smith, a crop share lease with Mrs. Jones, and a cash rent lease with Black, Inc., and the rest of the crop land is owned, the entire acreage would quality for three basic units. There would be one basic unit with each crop share owner, and one basic unit for the cash rented and owned land combined. Each crop share landowner can also insure his/her own interest in the crop as a separate unit.

Each different crop also creates a separate unit, and tracts of land in different counties must be insured as separate units. Each crop can have a different type of policy and level of coverage, and could receive an indemnity payment independent of the other units. Separate production records must be kept for each basic unit. Insuring all acres as basic units entitles producers to a 10 percent discount on their premiums.

Optional Units

If the same four farms described above were all owned or rented under a cash lease, they would qualify for only one basic unit for each crop. However, if the four farms were located in four different township sections, the operator could elect to insure them as four separate **optional units**, with separate policies. Separate APH records must be reported for each optional unit, and the operator would not receive the ten percent premium discount.

Optional units may also be designated when a crop is being grown under distinctly different farming practices. For example, a grower with both irrigated and dryland acres of the same crop may qualify for optional units. There must be an obvious break between the irrigated and dryland acres, however.

Other special farming types or practices may also qualify acres to be insured as separate units.

Enterprise Units

An **enterprise unit** combines all of the acres of a single crop within a county in which the policy holder has a financial interest into a single unit, regardless of whether they are owned or rented, or how many landlords are involved. For example, corn-soybean growers could have just two enterprise units for all their land, a corn enterprise unit and a soybean enterprise unit. Since the enterprise units would usually be larger than basic units or optional units, it is less likely that the average yield would be low enough to trigger an indemnity payment in a given year. Consequently, premiums are usually lower for enterprise units. Each enterprise unit must contain at least 50 acres, however.

MPCI policies offer enterprise units as on option, while Income Protection (IP) offers only enterprise units. Revenue Assurance (RA) provides a premium discount for selecting enterprise units. The discount is based on the number of township sections included in the acres used to form the enterprise unit.

Crop Revenue Coverage (CRC) also offers a premium discount for enterprise units on land that would normally qualify for more than one basic unit. The CRC enterprise premium discount is based on the number of acres in the enterprise unit--more acres will qualify for a larger discount.

Whole Farm Unit

Growers who are willing to combine both their corn and soybean acres into a single insurance unit can gain an additional premium discount. This is called a **whole farm unit**. The amount of the discount will depend on the proportion of the total acres planted to each crop. Growers planting an equal number of corn and soybean acres qualify for the largest whole farm unit premium discount.

All producers should check with an informed crop insurance agent to find out how many and what type of insurance units their crops qualify for, and how this could affect their premiums.

Example 2. Insurance Units

<table>
<tr><td>Farm A
owned

Township Section 1</td><td>Farm B
50 - 50 crop share lease
from Smith</td><td>Farm D
cash rent lease
from Jones</td><td rowspan="2">**Township Section 2**</td></tr>
<tr><td></td><td>Farm C
cash rent lease
from Smith</td><td>Farm E
50 - 50 crop share
lease from Smith</td></tr>
<tr><td colspan="2">Farm F
Owned</td><td>Farm G
60 - 40 crop share
lease from Black</td><td></td></tr>
<tr><td colspan="2">**Township Section 12**</td><td colspan="2">**Township Section 11**</td></tr>
</table>

Example: Farms A, B, C, D, E, F and G are all farmed by the same operator, and planted to the same crop.

Basic Units:

This operation would qualify for 3 basic units.

- Unit 1 includes Farms A, C, D, and F (all owned or cash rented).
- Unit 2 includes Farms B and E (both crop share rented from Smith).
- Unit 3 includes Farm G (crop share rented from Black).

Optional Units:

This operation would qualify for 6 optional units.

- Unit 1 includes Farms A and C (owned or cash rented in Section 1).
- Unit 2 includes Farm B (crop share rented in Section 1).
- Unit 3 includes Farm D (cash rented in Section 2).
- Unit 4 includes Farm E (crop share rented in Section 2).
- Unit 5 includes Farm F (owned in Section 12).
- Unit 6 includes Farm G (crop share rented in Section 11).

Enterprise Units:

This operation would qualify for one enterprise unit, including all the farms shown. If more than one crop was being grown, or if some farms were located in a different county, additional enterprise units would be designated.

Whole Farm Unit:

If both corn and soybeans were being grown on the farms shown, all acres could be combined into a single whole farm unit.

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