
Hail Damage Can Affect Crop Insurance Yields

Hail storms are a common occurrence in Iowa and other states in the Midwest. Crop damage can range from moderate to a total loss. Fortunately, producers who suffer hail damage to their crops often carry crop insurance and may be compensated for at least part of their losses. The size of the indemnity payments will depend on both the quantity and quality of the grain that is harvested.

Two distinct types of policies insure against hail damage: general multiple peril crop insurance (MPCI) policies and “named peril” policies. Named peril policies generally cover damage due to hail, wind, or fire. They **do not** cover yield losses due to other weather events or price risk. These policies are sold by private crop insurance companies and their premiums **are not** subsidized by the United States Department of Agriculture (USDA).

Named Peril Insurance

Policies written specifically for hail risk are called “crop-hail,” and provide a maximum dollar amount of coverage per acre, with a fixed percent deductible. “Companion” hail policies are similar, but provide coverage only in addition to that provided by a standard MPCI policy, that is, they cover some or all the deductible portion.

When hail hits an insured farm, damage is estimated as a percent of what the yield would have been without the weather occurrence, but a specific yield estimate is not made. The adjustor may look at the crop soon after the damage occurs, but often will defer an appraisal until later, possibly just before harvest when crop damage is more evident. If the crop is harvested before the final appraisal, check rows should be left or follow the instruction of the adjuster.

After a damage estimate is agreed upon, the indemnity payment is equal to the percent loss minus the percent deductible, times the dollar value of coverage. Many policies have a “disappearing deductible,” which means that as the percent crop loss increases the unpaid deductible portion decreases until eventually the entire loss is paid. This is usually done by multiplying the appraised loss by a factor of 1.25 or 1.50.

EXAMPLE 1

A farmer purchases a policy with a \$500 per acre coverage level and a 5% disappearing deductible.

After a hail storm, the adjustor determines the yield loss to be 15%.

PAYMENT

$(15\% - 5\%) \times 1.25 \times \$500 = \$62.50$ per acre

Multiple Peril Crop Insurance

A more widely used form of crop insurance is known as multiple peril crop insurance, or MPCI. It covers losses from a wide variety of natural causes. Some types also provide insurance against decreases in market prices. Premiums for MPCI policies are partially paid from USDA appropriations.

For MPCI policies, the volume of crop delivered is first corrected to a standard moisture percentage, such as 15% for corn and 13% for soybean. The total number of bushels produced is then reported to the insurance agent. However, when grain has been affected by hail, the volume of grain may be adjusted for low quality discounts.

A quality adjustment factor is computed based on three factors:

- If grain receives a “sample” grade due to excessive kernel damage or broken kernels and foreign material, a discount of 8.5% is assigned. Additional discounts may be applied if a musty, sour or otherwise objectionable odor is detected.
- Additional discounts are taken if the grain has a low test weight, beginning at samples testing lower than 49 pounds per bushel for both corn and soybean, down to 44 pounds for both corn and soybean.
- Excessive kernel damage, beginning at damage in excess of 10% for corn and 8% for soybean, up to 35% kernel damage for either crop, results in a further discount.

The quality adjustment factor is equal to the total of the discounts subtracted from 100%. If damage is in excess of the “chart values” for either low test weight or kernel damage, the discount will be based on the price discount assessed by the buyer of the grain compared to the local market price on the same day. For example, if the local market price for corn is \$3.20 per bushel and the buyer offers only \$2.40 for damaged corn, the volume of

grain reported for crop insurance purposes will be reduced by 25%. Production that **is not** sold will have an adjustment factor of 50%.

Additional discounts may be taken if substances such as aflatoxin, vomitoxin or fumonisin are detected in the grain. Each substance has a separate discount table, ranging up to 40% for aflatoxin and fumonisin and 25% for vomitoxin. Samples tested for aflatoxin must be obtained before grain is placed into storage. Crop insurance covers only losses that occur during the production stage. Any damage that occurs after the grain has been harvested and stored **is not** covered. Details about the quality discounts applied for damaged or tainted grain can be found in the “special provisions” section of a standard MPC I crop insurance policy.

The bushels of production at the standard moisture level will be reduced by the sum of the quality adjustment factors to arrive at the “production to count” bushels. These bushels will be used to settle claims for any MPC I policy, and to calculate actual production history (APH) yields for future policies.

For more details consult your licensed crop insurance agent or insurance provider.

EXAMPLE 2

A truckload of damaged corn contains 1,000 bushels after the moisture content is adjusted to 15% and receives a “sample” grade. Samples show the following quality losses:

Sample grade	discount factor = .099
Test weight = 48.5 pounds per bushel	discount factor = .041
Kernel damage = 16.5%	discount factor = .132
Aflatoxin presence = 30 ppb	discount factor = <u>.100</u>
	Total discount = .372
Quality adjustment factor = $1.000 - .372 = .628$	
Production to count = $1,000 \text{ bushels} \times .628 = 628 \text{ bushels}$ for that load	

The value of the indemnity payment will depend on the type of MPC I policy and guarantee purchased, the indemnity price, and (for revenue insurance) the futures price at harvest time.

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Revised by Patrick Hatting,
farm management field specialist,
hatting@iastate.edu;
Original author William Edwards,
retired extension economist
www.extension.iastate.edu/agdm