



The Verisk Crop Hail Model for the United States



The U.S. crop hail industry has experienced unprecedented losses in recent years. From 2016 to 2020, crop hail loss ratios were 90% or higher for five years in a row for the first time. In 2020 total industry losses exceeded total premiums, reaching a loss ratio of 114%.

To capture the loss-causing potential of hail and wind on crops, the latest meteorological research and claims data—including claims data from more recent years that have high crop hail loss ratios—are incorporated into the Verisk Crop Hail Model for the United States.



Coverage for crop hail losses has expanded with wind.

More farmers have added wind endorsements to their Crop Hail policies so that crop damage from both hail and wind is covered. In addition, crop yield at harvest is covered under Production Plan policies.

The Verisk model provides probabilistic views for both hail and wind as separate perils for Crop Hail policies. It is also the only model that provides loss estimates for two types of insurance products—Crop Hail and Production Plan.

Damage from a single storm varies by crop.

Hail and wind affect different crops differently, and the extent of the damage each peril causes depends on the developmental stage of the crop at the time of the storm. In emerging corn, for example, most growth occurs below the soil where the plant is protected, but the plant becomes vulnerable between emergence and maturity when it is exposed but not yet strong.

Crop- and peril-specific damage functions in the Verisk model account for the unique damage mechanisms of hail and wind at various stages of every modeled crop's growth and development.

You can get a more accurate view of your risk that accounts for changes in both crop area and climate.

Our probabilistic U.S. crop hail model accounts for the year-to-year changes in crop area and leverages the stochastic catalog of simulated hailstorms from Verisk's U.S. severe thunderstorm model, which provides a more accurate view of the risk in the near-present climate.

Model at a Glance

Modeled Perils

Hail and wind

Model Domain

42 U.S. states (excludes the six New England states, Hawaii, and Alaska)

Stochastic Catalog

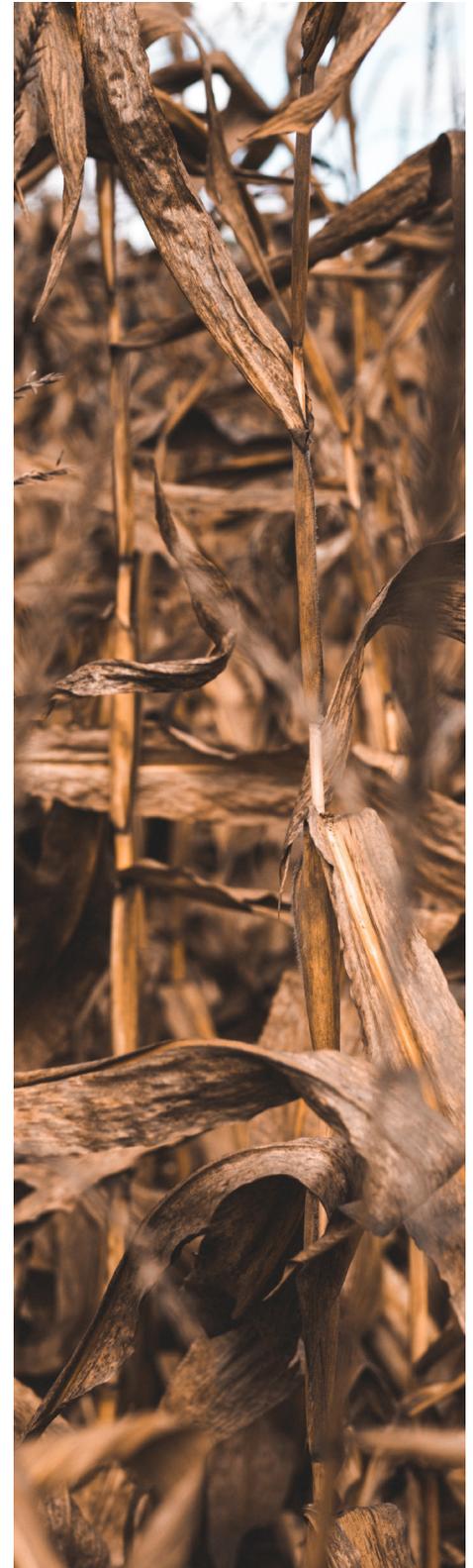
Touchstone Re™: 10,000-year hail and 10,000-year wind catalogs

Covered Crops

Corn, soybean, durum wheat, spring wheat, winter wheat, cotton, rice, and barley (losses to all other crops are accounted for statistically)

Geographic Resolution

County and state





Americas

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