

February 11, 2008

# Crop Insurance Agents & Weather Coverage: Expand Selling Season & Attract New Business

By WeatherBill, Inc.

## NEW WEATHER COVERAGE SOLUTIONS FOR AGRICULTURE

### TABLE OF CONTENTS

2	Introduction
2	Weather Coverage History
3	Weather Coverage Complements Crop Insurance
5	Weather is Changing
6	Weather Coverage Solutions
10	Expand Crop Insurance Business
11	About WeatherBill
12	Conclusion



## INTRODUCTION

Everyone in Agribusiness is acutely aware of the positive and negative effects weather has on yield and profit. The Texas High Plains Underground Water Conservation District revealed a remarkable statistic in 1996: an inch of rain was worth \$91 million in total market value for cotton, grain sorghum, wheat, and corn grown in 15 Texas counties. The study concluded that this would lead to a total economic impact of \$318 million for the area-for a single inch of rain.<sup>1</sup> Imagine what a long rainy season or drought could mean for the state at large, or for the rest of the country.

Although many of the weather-related risks in Agriculture are covered by the Federal Crop Insurance Program, many growers are not eligible for coverage and many choose simply not to participate. The safety net created back in the 1930's, when severe drought (and the Great Depression) resulted in the Dust Bowl that wiped out so many family farms, has several gaps that are now being filled by the private sector. Growers and crop insurance providers across the country are increasingly turning to new weather coverages for yield and cost risks, especially those created by non-catastrophic weather events like frost or a heat wave.

Weather coverage has been embraced for the last decade by the Energy markets and is quickly spreading throughout Agriculture. Growers and agribusinesses that rely on growers or crops face new economic and climate challenges and are looking for new ways to protect their businesses. Crop insurance providers are also looking for new ways to sustain and grow their businesses. The flexibility of weather coverage has attracted the attention of many growers that historically have chosen not to use crop insurance. More importantly, businesses underserved by crop insurance can now protect profit from the weather, including:

1. Growers that are not eligible for crop insurance (specialty crop producers, double-croppers, early planters, growers with no actual production history numbers)
2. Growers that want to cover deductible risks on crops that are covered by Federal crop insurance.
3. Other Agribusinesses, such as Packers, Processors, Grain Elevators and even outdoor events

This report is written for the brokers, agents, and financial advisors who cater to growers and other weather-sensitive businesses in Agriculture. The objective is to provide examples of new ways to protect revenue and profit from the weather in an increasing volatile economy and changing climate. It is our hope that this report will help those selling crop insurance and other financial services grow Agribusiness sales with new weather coverage.

### (A VERY SHORT) WEATHER COVERAGE HISTORY LESSON

Weather coverage traces its roots to electric companies trying to make their profits more predictable, even when the weather wasn't. The first weather coverage contract was created in Milwaukee for the winter of 1997-1998. Electric companies found large financial risk takers who, in exchange for a premium, would pay for "bad" weather – either mild winters when consumers weren't turning up their heat or cool summers when they weren't using their air conditioning. When weather stations indicated mild temperatures, the energy companies were paid by the financial risk takers and met their profit expectations. If the "bad" weather didn't happen, the financial risk takers kept the premium, and the energy companies had the peace of mind that they would meet their profit expectations.

These weather risk management contracts have traded on the Chicago Mercantile Exchange (CME) since 1999, but offer very limited customization and are available only in major metropolitan areas like Atlanta, New York and Philadelphia. CME weather coverage fits the needs of large Energy companies quite well, but these standardized CME contracts can't help a corn grower in Mankato, MN protect against the weather events that are important to him.

---

1 <http://agnewsarchive.tamu.edu/dailynews/stories/DRGHT/carmon.HTML>

Today, weather coverage is increasingly flexible and more widely available thanks to innovations by new companies and a growing Weather Risk Management industry. Weather coverage is now utilized by weather-sensitive businesses large and small, in urban and rural locations, for all kinds of weather. Municipalities, outdoor concerts, professional sports teams, ski resorts, golf tournaments, car washes, agricultural producers and more rely on weather coverage to protect profits.

## WEATHER COVERAGE COMPLEMENTS CROP INSURANCE

Although two thirds of field crop acreage in the United States is typically protected by Federal Crop Insurance, many remaining crops are not eligible for coverage and many growers simply do not participate. In 2002, only 16 percent of U.S. farms purchased crop insurance, according to USDA's Agricultural Resource Management Survey. Weather coverage is designed to cover previously unprotected or unmanageable weather risk, filling in some of the gaps left by crop insurance.

Weather coverage is similar to, but not the same as crop or other types of insurance. It's a financial tool that *complements* crop insurance by providing coverage for previously unprotected weather risks. Like Insurance, weather coverage pays for an *anticipated* loss and can be purchased from crop or other Insurance providers. Unlike crop insurance, weather coverage is completely flexible and has no limitations or exclusions and it pays automatically without claims or proof of loss.

**Weather coverage is flexible; there are no limitations or exclusions.** Weather coverage is customized for each individual grower to protect against the specific weather events that matter to the grower, including too much rain, drought, heat, cold, frost, or any combination of these weather events. Coverage can be customized to fully protect any crop, during any portion of the crop cycle, anywhere in the country, at any time. There are no excluded crops, no deductible requirements, no seasonal purchase deadlines and no predetermined risk periods. Growers of any size and income level can participate. Anyone with a revenue risk related to the weather can purchase coverage for any amount – from \$1 to millions of dollars.

**Weather coverage offers protection to growers who aren't typically eligible for crop insurance.** For instance, a grower who is double cropping or planting outside of the standard planting windows can use weather coverage. So can a grower located in a river bottom or without Actual Production History (APH). Weather coverage is also available to specialty crop producers, like pecan growers in counties with no coverage or hay growers who do not have a federal crop insurance program.

**Weather coverage requires no deductibles.** Growers can even add coverage for insured crops by covering Crop Insurance deductibles. A 25% or 35% loss, especially for high value crops and during highly productive seasons can be quite disruptive. Weather coverage offers complete protection to enable growers to maintain predictable revenue

**Weather coverage can be priced and purchased year-round,** up to two weeks before the desired protection period. Growers don't need to determine the full extent of their risk before seed is even in the ground. They can buy coverage at any time in response to evolving conditions in the field.

**Weather coverage can protect specific portions of the crop cycle.** Federal Crop Insurance does a good job of protecting against the variety of problems that can happen during the entire growing season for crops where the program exists. Weather coverage is more of a complementary product that can protect against weather risks that may occur during specific periods such as planting, pollination or harvest. Weather coverage is generally used to protect the crop during a discrete time period against a specific weather risk.

## **Weather Coverage Pays without Claims or Proof of Loss**

Weather coverage provides fast payment without a claims process or proof of loss. Growers get cash when they need it, instead of waiting up to a year for payment. While crop insurance pays out based on demonstrated loss and human assessment of damages, weather coverage pays based on a weather event, like rain, heat or freeze, eliminating claims and waiting for payment. Bad weather happens and growers get paid quickly – it's that simple.

Weather coverage also requires no underwriting – fully customized quotes can be completed online or by phone in minutes. Additionally, since pricing is based on weather probability, historic payouts and pricing value is completely transparent.

## **Weather Coverage Payout Based on Weather Not Loss**

It's important to note that weather coverage payouts may be less than or exceed actual losses, since payment is based solely on weather. Typically, the weather station providing the coverage settlement data is not located directly in the grower's field. This may result in weather measurements that are different than the weather experienced in the field.

This concept of "basis risk" is not unfamiliar to growers or insurance providers. Weather coverage basis risk is the risk that a contract is priced and settled based on weather data from a different location than the area the grower wishes to cover. Basis risk exists with existing insurance products, including GRIP, where the grower is not getting paid based on their actual production, but they are instead being paid based on average production across the county, with a similar potential result of over or under payment.

Additionally, weather may affect crops in an unanticipated way. For example, growers may purchase freeze coverage, but it's possible that even if the temperature falls below freezing they may not suffer a loss, because freeze abatement strategies were successful. In this case the grower would be paid even though they didn't lose money.

Finally, it's important to understand the type of weather risk affecting a business in order to build the right coverage. Over protecting a business can increase the price of coverage, while under protecting can prevent payout when more extreme weather events happen than anticipated. For example, does weather risk decline as the season progresses, implying the need for a declining payout structure to control costs?

In summary, here are some examples of how weather coverage complements Crop Insurance:

- Cover crops excluded from the Federal Crop Insurance program (pecans, chili peppers, asparagus, etc.)
- Provide coverage for double-cropping or early planting risks
- Add coverage for insured crops by covering Crop Insurance deductibles and surpluses
- Sell freeze protection after Crop Insurance purchase deadlines
- Provide harvest coverage to match crop and risk in the field

## **Weather Coverage in Africa**

Weather coverage isn't only helping individual growers. It's also helping countries dependent on Agriculture that lack nationalized insurance programs.

Weather coverage was created in 2008 to protect farmers in Malawi. Swiss Re, a global reinsurer that focuses on risk transfer and asset management, announced that it was backing a weather coverage contract for the World Bank's International Development Association (IDA).

The coverage will pay up to \$5 million if Malawi's farmers suffer from a drought-related shortfall in maize production. The maximum payout is reached if maize production drops 10% below the historical average.

Swiss Re's Head of Environmental and Commodity Markets explained that the coverage was "a prime example of an ex-ante disaster risk management strategy designed to mitigate the financial impact of drought for a country such as Malawi that is heavily dependent upon the income from its agricultural production."

## THE WEATHER IS CHANGING

One-third of the United States' economy, or \$3.8 trillion, is at risk due to the weather, according to the U.S. Department of Commerce. Nearly every industry in the world is affected by weather at some stage of the business cycle, but what's unique about agricultural weather risk is its variety and frequency. Throughout the year and across the world, every type of weather, from drought and heat to frost and floods, poses a financial threat. Although Agriculture is the only industry with federally subsidized revenue protection in the form of crop insurance, a large percentage of annual production remains unprotected, underinsured or ineligible, leaving billions of dollars currently unprotected from weather risk. U.S. crop production in 2008 was valued at more than \$188 billion dollars and less than 50% of that value was protected by crop insurance.<sup>2</sup>

Agriculture success is (obviously) directly dependent on weather and climate. Moisture stress, either a lack or an abundance of soil moisture during critical phases of the crop growth and development cycle, affects average crop yield as well as production costs. Critical planting, reproductive, growing and harvest seasons are all vulnerable to rainfall fluctuations. Unseasonable rain, especially during the pollination period, can dramatically reduce profitability.

In the U.S., 80% of counties rely on rain-fed agriculture. Irrigated counties, as one would expect, are more prevalent in drier regions in the West. While rain-fed growers have higher yield risks due to unseasonable rainfall than irrigated growers, rising irrigation costs due to drought can also be a significant risk, since irrigation often accounts for 30% of total operating costs.

Unfortunately, weather challenges for Agriculture may increase as a result of climate change. The full impact of climate change is not yet understood, but a growing body of research suggests significant changes that will undoubtedly impact growers. It's not clear if crop insurance will be able to keep pace.

The likelihood of long-lasting droughts and more severe weather is increasing due to climate change. The United Nation's Intergovernmental Panel on Climate Change (IPCC) predicted in 2007 that a warmer climate could increase the potential for droughts, floods and heat waves which could threaten producers. The IPCC predicted that climate change could also make it less feasible to continue crop production in certain regions.<sup>3</sup>

Those predictions are already becoming reality in California where a crippling, two-year drought has taken hold of the Central Valley. During the winter of 2008-2009, thousands of acres of crops are being abandoned. Agriculture officials in Fresno County predict farmers will only grow about 6,000 acres of lettuce, roughly half the acreage devoted to greens in 2005.<sup>4</sup> It's not just growers that are feeling the financial affect of the drought. That decrease in lettuce acreage, for example, could increase lettuce and mixed-salad prices in grocery stores.

However, sixty percent of global weather-related losses, including those in Agriculture, are caused by small weather events as opposed to headline-catching catastrophes, according to Evan Mills, a scientist with Berkeley Lab's Environmental Energy Technologies Division. "In the USA there are more economic losses to frost damage than any other natural hazard including earthquakes, floods, droughts, hurricanes and tornados," writes Professor R.L. Snyder of the University of California at Davis in *World-wide Frost Problems and Frost Protection*. Even small changes in climate or greater frequency of unseasonable weather can devastate crop yields.

---

<sup>2</sup> U.S. Risk Management Agency. <http://www.rma.usda.gov/data/sob.html>

<sup>3</sup> [IPCC, 2007: Climate Change 2007: Impacts, Adaptation, and Vulnerability](#). Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change [Parry, Martin L., Canziani, Osvaldo F., Palutikof, Jean P., van der Linden, Paul J., and Hanson, Clair E. (eds.)]. Cambridge University Press, Cambridge, United Kingdom, 1000 pp.

<sup>4</sup> [http://www.salon.com/wires/ap/business/2009/01/25/D95UCU480\\_california\\_drought/](http://www.salon.com/wires/ap/business/2009/01/25/D95UCU480_california_drought/)

## WEATHER COVERAGE SOLUTIONS

Weather coverage can complement Crop Insurance and, for the first time, cover underserved and ineligible growers and businesses that depend on yields to protect yield and control costs for a better bottom line. Now it's no longer necessary to leave profit to the mercy of bad weather. Weather coverage enables all business owners to develop a sound weather risk management strategy to get paid for the weather that historically made revenue unpredictable. In the following pages, we will examine some specific weather coverage examples to illustrate the simplicity, flexibility and endless customization available to growers and insurance providers.

### PROTECT YIELD

#### Early Fall Freeze Coverage

Corn, which depends on growing degree days, can survive brief exposures to adverse temperatures, ranging from 32 to 112 degrees Fahrenheit; however the entire plant can be killed if the temperature drops below 30 degrees Fahrenheit for four to five hours. Silking corn requires 55 to 60 days to mature for harvest, so that yield is no longer vulnerable to frost.

In 2008, heavy spring rains in the Midwest delayed planting and development, heightening the risk of crops being hit by a killing freeze before they reached maturity. Temperatures in September needed to be above average in order for plants to mature before the expected October freezes (according to a report by the University of Nebraska-Lincoln Extension Institute of Agriculture and Natural Resources released on July 25<sup>th</sup>).

Of course, no one knew during the March Crop Insurance buying season that spring rains would be unseasonably heavy, creating substantial end of season risk. To make matters worse, Crop Insurance can't be adjusted or purchased in July to address changing conditions in the field. While crop insurance would help offset some early freeze losses, many growers worried about protecting uncovered deductibles or protecting late replanted acres that had no insurance at all.

Early freeze weather coverage fully and economically protects against yield losses caused by fall freezes hitting before some or the entire crop is mature. The coverage uses a declining liability structure that pays more if the first hard freeze happens early (and more crops in the field are susceptible to damage) and less if the first hard freeze happens late. Coverage can be purchased as late as August 15<sup>th</sup>.

#### EXAMPLE: Early Freeze Coverage

**Problem:** There's been a late start to planting and crops in Mankato, Minnesota, are maturing slowly. Much of the soybean and corn crop is at risk if the first hard freeze occurs before October 3<sup>rd</sup>.

**Coverage:** A declining payout structure will pay a lot for an early freeze – \$250,000 for a freeze that happens before September 10 - and less if the freeze happens later in the fall – \$10,000 if the first hard freeze holds off held off until October 3<sup>rd</sup>. Payout declines with every day of non-freezing weather.

**Cost:** The cost of this coverage in 2008 in Mankato was \$6,750.

**Outcome:** It turned out that there was not an early freeze in 2008 so most of these contracts didn't pay out. What this coverage did provide was priceless: the peace of mind that if a freeze occurred the grower was covered.

It is worth noting that when growers first began creating early freeze risk coverage, they wanted to be paid a flat amount, like \$250,000, if the first hard freeze came anytime before harvest completion. That type of flat payout coverage turned out to be unnecessarily expensive since freeze risk is not a flat risk: For every day that the first freeze of the season held off, more and more of the crop would reach maturity and be safe from damage by freeze. Adding a declining payout structure better matches the risk profile of the grower and made coverage much more affordable.

Weather coverage provides the opportunity to customize all sorts of freeze coverage. Growers and insurance providers can design custom citrus freeze protection in December and January, cherry blossom protection for early Spring and winter wheat freeze protection for April, to name a few. Coverage can be sold at any time during the crop cycle, for any duration, to anyone in Agribusiness for a few dollars or for millions. Weather coverage can even be designed for hour by hour protection.

EXAMPLE: Hourly Freeze Weather Coverage

Problem: A winter wheat grower in Arkansas is worried about below freezing spring temperatures. Every hour of freezing temperature increases the amount of damage to the crops.

Coverage: The grower created custom coverage that will pay \$100,000 per consecutive hour that temperatures fall below 28 degrees Fahrenheit between April 2<sup>nd</sup> and April 16<sup>th</sup>. This coverage pays based on the hourly temperatures as opposed to daily maximum or minimum temperatures.

Price: The price of this coverage depends on many factors, but will typically be between 2% and 18% of the total amount the grower wishes to be paid.

## Rain-Delayed Planting Coverage

A wet spring can delay planting and shorten the normal growing season and reduce yield. While traditional crop insurance provides financial protection against prevented planting, there have never been any products that guarantee good weather conditions for growers that will ensure an early start to planting. Weather coverage can provide that protection.

### EXAMPLE: Early Planting Guaranteed (Coverage)

**Problem:** A grower in Webster City, Iowa is worried rain will delay planting. The grower wants to make sure she gets her crop planted in the first 15 days of the planting period. Too much rain will keep that from happening. She knows she can complete planting if she gets six consecutive days of dry weather between April 15<sup>th</sup> and April 30<sup>th</sup>.

**Coverage:** The grower creates custom coverage that will pay \$50 per acre if she does not get six consecutive dry days between April 15<sup>th</sup> and April 30<sup>th</sup>. She defines “dry” as less than 0.5” total rain for the six day period. This contract essentially guarantees the grower that she will get an early start to planting or be compensated for a shorter growing season.

**Cost:** The cost of this coverage in 2009 in Webster City, Iowa is \$4.31 per acre.

**Outcome:** This coverage would have paid \$50/ acre in 2008 when the grower was not able to plant early due to heavy spring rains.

## Cool June Weather Coverage

While traditional crop insurance provides financial protection against a ruined season, there has been little to protect corn growers from the financial impact of a cool summer that reduces yield less than the 25-35% crop insurance deductibles. Weather coverage can protect against the risk of unseasonably cool June weather by compensating growers for low temperatures that delay corn maturity, resulting in end-of-season yield shortfalls.

### EXAMPLE: Cool June Coverage

**Problem:** A grower in Baker, North Dakota, wants to protect against a summer that is colder than normal. He knows that the 30-year average for heat units in the month of June is 407. However, in Baker, total June heat units have been as low as 283 (in 2004).

**Coverage:** The grower creates custom coverage that will pay out if the total heat units in June fall below 305. The coverage costs \$5.25 per acre and will return \$27.38 per acre in a year like 2004 when total June heat units were only 283. The grower could receive up to \$100 per acre in the event total June heat units in Baker are below 225.

Growers can choose from a variety of payment structures. For example, if total June heat units measured at the nearest weather station is less than 75% of the 30-year historical average. A second example would compensate for a June that is less than 80% of the 30-year historical average. If the June heat units are less than the specified threshold, growers will be paid \$1.25 per heat unit shortfall per acre, up to a maximum of \$100 per acre.

#### Alternate Forms of Yield Protection Weather Coverage

Weather coverage is so highly customizable and flexible that many users are surprised by the endless array of manageable weather risks, esp. in Agriculture. Weather is simply no longer a good excuse for poor profits for anyone in Agribusiness.

Weather coverage is available for packing houses and processing plants, harvest companies and grain elevators that have revenues that are dependent on the amount of volume they handle. Weather coverage is also ideal for outdoor events like golf tournaments, concerts, county fairs, horse shows, rodeos, corn mazes and other forms of Agritainment.

The following weather coverage examples can be used to protect yield. *These examples are based on real weather coverage contracts created between 2007 and 2008 in Agriculture by WeatherBill.*

#### EXAMPLES: Alternate Forms of Yield Protection Weather Coverage

Bee-Pollinated Crop Coverage: In California, almonds are a bee-pollinated crop, and the risk growers face is that once the bloom gets on the tree, if the temperature falls below 55 degrees, the bees won't fly, the crops won't be pollinated and there will be decreased almond yield. For almonds and other bee-pollinated crops, "bee flight coverage" can be created to pay based on cool temperature.

Nursery Coverage: An East Coast retail nursery supplies to Home Depot and generates about 80% of their annual revenue during the month of April. Most of that revenue is made on Saturdays and Sundays. If both Saturday and Sunday of any weekend during April are rainy or cold the nursery would miss year-end revenues expectations. This is a problem they faced in 2007 when two weekends in April were rained out. The nursery created coverage that pays for lost potential sales due to rainy weather that discourages customers from shopping.

Growing Degree Day Guarantee: Growers use this coverage to ensure that a certain number of Growing Degree Days (GDD) are achieved between the date a crop is planted and expected harvest, typically around September 15. This coverage protects against the risk that a crop hasn't reached maturity before the first freeze occurs, typically due to cool summer temperatures.

Too Much Rain Coverage: A Nebraskan Diesel Supply company worried about rainy years when growers didn't need to run their irrigators, reducing diesel revenue. Unlike most agricultural businesses, this company needed some level of drought to be successful. They created coverage that would pay for above-average rainfall.

Corn Maze Coverage: Corn mazes and Halloween operations are dependent on having good weekend weather in October. These operations bring in anywhere between \$5,000 and \$300,000 per weekend when weather is good. One operation in Georgia had over \$1 million of revenue at risk in the month of October. The extremely short season made weather coverage a must – the corn maze created coverage that pays for rainy weekends.

Companies like WeatherBill are working on new weather coverage products that will benefit feed lots. Weather coverage providers and the Cattle Industry in places like West Texas and Colorado, are seeing warmer winter weather in 2008-2009 that are benefiting feed lots. Drier weather and increasingly warmer temperatures in January are keeping respiratory diseases at bay and keeping cattle healthier. The month of January has been exceptionally mild with temperatures running 4-7°F above normal. The warm winters are also beneficial because cattle require less feed to gain weight.

Weather coverage allows feed lots to hedge against cold/wet winters that increase feed costs and decrease rate of gain and cause more disease. Coverage can also be designed to manage the impact of heat on livestock that can affect reproductive success and rate of gain.

## CONTROL COSTS

Weather coverage can be designed to control input costs associated with bad weather. One of the most popular forms of cost coverage is designed to protect against increased irrigation costs during droughts, especially in heavily irrigated states like Nebraska and California. Dry summers require more irrigation and, as a result, more fuel to run pumps. Growers in Nebraska can end up spending more than \$100/acre on irrigation over the course of a summer. Weather coverage can also protect against increased costs due to seed replanting when weather prevents germination or a hard spring freeze kills an early-stage crop.

### EXAMPLE: Irrigation Costs Weather Coverage

Problem: A grower in McCook, Nebraska wants to protect against increased irrigation costs during a summer that is drier than normal.

Coverage: The grower creates weather coverage that will pay him \$25 per acre for every inch of rain shortfall if total rainfall between June 1 and August 31 is less than 5 inches.

Price: The cost of this coverage in 2008 was \$4.72/acre.

Outcome: This coverage would have returned \$49/acre in the 2002 drought, \$19/acre in 2001 and \$8/acre in 2000.

## EXPAND CROP INSURANCE BUSINESS

As mentioned earlier, less than 50% of U.S. crop value is typically protected by crop insurance. More than \$90 billion dollars of crop production remains unprotected – that's a huge market opportunity.

### Weather Coverage Attracts New Customers

Many growers and supporting Agribusinesses not eligible for Crop Insurance can benefit greatly from weather coverage. Even existing Crop Insurance buyers will consider weather coverage to protect against gaps and deductible risk. Although there will always be growers who prefer to self-insure against weather risk, many who do not participate in crop insurance today will buy weather coverage that can be designed to better meet their specific needs.

## Weather Coverage Expands the Crop Insurance Selling Season

As previously mentioned, the main challenge with crop insurance is that it requires growers to make their risk management decisions before they've planted the first seed in the ground and before information about the upcoming season is available. Furthermore, when conditions do start changing and more information is available, crop insurance does not give growers the option to change, add or increase coverage. After the crop insurance purchase deadline, growers are essentially at the mercy of Mother Nature with no ability to change their risk management strategy. Weather coverage puts power back in the hands of growers by allowing them to buy exactly the protection that meets their needs, when they need it.

Weather coverage provides insurance agents and brokers the ability to create specialized 'named peril' products during any point in the growing season to meet the needs of clients that may have been underserved, or not served at all, by crop or other insurance. Numerous examples have already been covered – "rain delayed planting", "late harvest frost", "cool June maturity delay". Weather coverage provides a foundation on which virtually any named weather peril product can be created. Coverage can be customized to protect any portion of the crop cycle, anywhere in the country, at any time.

### ABOUT WEATHERBILL

WeatherBill is the first service to provide affordable and easy-to-use weather coverage to protect revenue and control costs for the millions of businesses impacted by the weather. To understand what makes the company unique, it is important to understand how weather coverage was originally offered and its initial shortfalls.

Weather contracts have traded on the Chicago Mercantile Exchange (CME) since 1999, but they offer limited customization, require large purchases and are available only in major metropolitan areas like Atlanta and New York City. CME weather coverage fits the needs of large Energy companies quite well, but if you're a grower in a remote area, these large, standardized contracts can't meet your very specific needs.

Three major obstacles have prevented weather coverage from being utilized by all weather-sensitive businesses. The first obstacle was accessibility. It took a team of attorneys and financial experts to price coverage, create documents, and execute the transaction. Thus, weather coverage was only available to large Fortune 500 businesses. The second obstacle was cost. The customization required to create appropriate weather coverage made it expensive and difficult to price on a small scale. The third obstacle was transparency. Weather data and an understanding of weather's effects on earnings were not well understood, so optimizing coverage was difficult.

WeatherBill removed these three obstacles by creating the first online platform available to all businesses, including those in Agriculture. Customers can customize, price, and buy coverage online or by phone in a matter of minutes at [www.weatherbill.com](http://www.weatherbill.com). By streamlining customization and pricing, WeatherBill can cost-effectively provide coverage from \$1.00 to millions of dollars. WeatherBill also provides historic payout charts so customers can find the best value for the best price.

WeatherBill coverage can be created for snow and rain, drought, heat or cold. Coverage is easily customized based on four elements outlined in a weather contract:

Location – Over 6,000 weather stations in seven countries (more locations available by phone)

Coverage Period – Hourly, day, weekend, season, year, etc.

Type of Weather that Triggers Payment – Rain, drought, heat, cold, snow

Payout Amount - \$1 to \$100 million or more

Unlike insurance, WeatherBill payout is based on weather measurements, not human assessment of loss. Once the defined weather happens, customers automatically receive a check for the payout amount in a few business days. There's no proof of loss, claims process, or waiting for payment. Deductibles are optional.

WeatherBill also has a sales program designed for agents, brokers, and financial advisors in the Agriculture Industry, called WeatherBill Pro, which helps agents and brokers create additional revenue streams while better serving clients by managing weather risk. A unique way WeatherBill helps accomplish this is by providing historical payout information for every contract. This adds another level of transparency to the quoting process. WeatherBill quotes and contracts display thirty years of historic weather data and payouts. WeatherBill Pro also offers multiple client servicing options, generous commissions, and a robust tracking system to manage clients, contracts and commissions across an entire agency.

Some of WeatherBill's current Agriculture partners include Grower's Edge ([growers-edge.com](http://growers-edge.com)); [www.WeatherHarbor.com](http://www.WeatherHarbor.com); and AgQuest. For larger applications, WeatherBill can create white label weather coverage under a company's brand name or provide an application that allows WeatherBill's pricing module to be imbedded right into a company's website. That means agents and clients can design, price and buy weather coverage without leaving a company's website.

Coverage can be created online or over the phone in a matter of minutes and implemented 14 days before the desired coverage period. WeatherBill's financial risk partner, Nephila Capital Ltd., is one of the world's largest and most respected weather risk and catastrophe reinsurance fund managers, with over \$2 billion in capital. In order to make sure that any payment due to our clients is available, in full, at any time, Nephila fully collateralizes each contract WeatherBill sells with cash held in trust at the Bank of New York.

## CONCLUSION

Weather coverage is a powerful complement to Crop Insurance that benefits both growers and insurance providers:

- **Weather Coverage is flexible and has no limitations, exclusions or deductibles.** It is available to growers and other Agribusinesses with weather risks that are not covered or are restricted by crop insurance, including double cropping, growers without APH, and specialty crop growers.
- **Weather Coverage can be purchased at any time** for specific risks, rather than just at the start of the season. Growers worried about drought can wait for a dry spring before purchasing coverage in June. Or, growers can observe crop maturity to determine if early freeze before harvest is a risk requiring coverage.
- **Weather coverage can protect specific portions of the crop cycle.** Growers can buy planting, pollination or harvest coverage to match the crop in the field. If it's a good year and growers have 150% of average yield in the field, it may make sense to top off crop insurance coverage to insure the full yield.
- **Weather coverage pays automatically without claims or proof of loss.** Payout is based on weather, not loss so there are no claims or payment delays. There's also no underwriting so coverage can be sold instantly online or by phone, in minutes.

Weather is unpredictable. Agriculture profit no longer has to be.

[www.weatherbill.com](http://www.weatherbill.com)

(888) 924-7475

[support@weatherbill.com](mailto:support@weatherbill.com)