



## Australian businesses take part in global discussion on managing weather risk

MELBOURNE (17 March 2011) -- Managing weather risk can be challenging but, as attendees learned at the Weather Risk Management Association's Australian Meeting, more creative and innovative tools are available to help Australian businesses handle their exposure. WRMA's Australian Meeting was held 9-11 March in Melbourne.

Climatologist Hayden Walker briefed attendees on the increasing need for risk management with a predicted increase in extreme weather events for the near future. Like his father, Walker used the theory of sun spots to correlate sun spot activity with an increase in dramatic weather events including volcanoes, floods, drought, and earthquakes. Walker cautioned attendees of a tumultuous 2011 with anticipated affects more intense than 2010.

Trends in the weather market were discussed by an international panel of weather experts, who made their own predictions about the direction of the weather risk market. With the latest WRMA Industry Survey expected to be released in May, international practitioners anticipated an increase of new end-user participants and more repeat users of weather derivative products.

Interest is rising from the agriculture sector

The Australian agriculture sector is seeing more weather risk products tailored for the needs of farmers, growers and traders. Right now, existing insurance products are limited to hail, fire and frost, said Peter Book, underwriting manager at Primacy Agricultural Insurance Specialists. The weather-based derivatives market covers rain and frost. Book's company has developed YieldShield, a "tool to transfer the risk of a growing season not reaching its reasonable expectations." This isn't an income guarantee cover, but a yield model based on basis risk. The product has been introduced as a pilot. In running the pilot, several lessons have been learned, Book said, including that "farmers are eternal optimists," which creates challenges for companies providing risk management tools.

Optimists also exist in the Australian dairy industry, but so do realists. Dairy farmers are 80% dependent on rainfall or irrigation from surface dams, said Neil Lane, technical manager at Intelact Australia. To manage risk, traditionally farmers have paid down debt and built equity as well as accumulated fodder reserves. Even the top 10% of pasture-based dairy farmers (in this case Gippsland, Victoria) "can't afford to have too many bad years," Lane said. To cover below average rainfall in the Autumn and Spring, dairy farmers could take out weather insurance, proposed Lane. Allowing for annual insurance premiums and payouts, Lane said that for a 10 year average, the estimated profit would be Aus\$1,994 per hectare (Ha) with

insurance and Aus\$1,970/Ha without insurance. For the two worst seasons -- years six and seven in the 10-year average - there's a distinct advantage to having weather insurance, according to Lane's calculations. For year six, the profit would be Aus\$1,203/Ha without insurance versus Aus\$1,618/Ha with weather insurance. In year seven, profit would be Aus\$523 without insurance versus Aus\$1,023/Ha with weather insurance.

Wheat growers can also benefit from weather covers. Wheat growers face 'down grade' risk when rain causes the crop to be graded at a lower level and therefore a lower price, said Jonathan Barratt, director at WeatherPro. He sees a need for a 'down grade' protection contract, which could offer clients protection on the order of Aus\$18-Aus\$48 a ton.

What's needed for the agriculture market right now? According to Barratt, growers need easy, online access to pricing for weather certificates, transparent monitoring of positions and payouts and access to solutions that non-technical people can understand.

### Impact on construction, transport

Solutions are also needed for the construction and transportation sectors. The impact of weather on the US economy is significant, said Steve Gaddy, Meteorological Data Manager, MDA EarthSat Weather. How snow affects the economy is a good example. In the US, snow removal costs run more than \$2 billion a year. Snow causes road closures, resulting in lost retail trade, wages and tax revenue. Snow also causes flight delays and damage to utilities. Frost and ice affect agriculture and timber production. Weather-related delays, including snow, add \$3.4 billion to US freight costs each year.

In Australia, the transportation industry is affected by fog, snow, flooding, cyclones, and heat waves, said Andre Martin, vice president at Swiss Re Sydney. There is good potential for the Australian transportation industry to use weather risk products to mitigate risks from non-catastrophic weather events as well as extreme weather events.

While parametric weather instruments are predominately used by the energy sector, other sectors are beginning to use these tools. In construction, "inclement weather is one main cause for project delays and profit uncertainty," said Martin. Precipitation, temperature, wind and wave action can affect construction projects. Construction companies can use parametric weather products to hedge risk. These products could be standardized single-trigger options or tailor-made, structures solutions using multi-triggers.

### What about renewables?

As more utilities rely on power from renewable sources such as wind, the impact of weather risk on revenues increases. With wind farms, there's the possibility of not enough wind or too much wind, said Stuart Brown, director of corporate solutions, Swiss Re. A wind production index could be used to "map wind speed to electricity production in order to minimize basis risk," said Brown. He pointed out that "using wind insurance adds value only when it can be attached at a level that pays for itself through higher returns and lower capital cost."

Weather covers are also being used to offset risk for solar energy. Brown said an Italian client needed weather protection for minimum irradiance as part of an all-risk insurance package. A solution was crafted that led to a five-year "recovery" structure for the client.

### Data is the key

No matter what industry or cover is being used, weather risk management tools rely on data. David Whitehead, director of US operations for Speedwell Weather, pointed out that "without weather data you cannot understand value." Data is key for any company wishing to set up a weather desk.

With twice the attendance of the last Australian meeting in 2003, attendees were engaged in thought-provoking debates with panelists during the workshop-style sessions. The session discussions overflowed into the halls creating lively conversations at the networking breaks

as well as the Opening Reception and dinner hosted at Maha Restaurant. Attendees enjoyed a four-course meal with tastes of the Middle East as they conceived the next steps for the Australian weather markets.

### About WRMA

Founded in 1999, WRMA is an international trade organization dedicated to promoting the industry, both to those within it and to end users. The weather risk industry offers companies the opportunity to control their financial exposure to weather conditions. WRMA initiates surveys of the industry, advocates the standardization of contracts and other documentation used for transactions and sponsors forums and conferences around the world for members to meet and discuss a range of topics, such as international markets, data collection issues, and tax and legal matters. Visit us at <http://www.wrma.org/>

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