


For the future of food security, agricultural sectors cannot afford to ignore extreme weather patterns, warned Professor Tim Benton of the University of Leeds. 

The U.K. champion for global food security spoke with www.freshfruitportal.com about the growing reality of erratic weather events across the planet and the implications for food production.

"If you see a rare weather event, we can't say whether or not that is associated with climate change. That has tended to make us ignore the fact that we have all been seeing the weather get more variable," Benton explained.

From overly frequent flooding in New York to abnormally hot summers in the U.K., Benton said the current growth of funny weather cannot be denied.

"What we experience or crops or livestock experience is weather, not climate. Thinking only about climate or average weather, which we tend to do when we think about climate change, underestimates the impact of variable weather," he added.

"As soon as you have an extreme temperature, especially associated with drought, that has a very large impact on agricultural production. Then increasing concentration of weather into shorter, more forceful rainfall events clearly has a whole range of impacts."

In a global context, Leeds proposes a frightening question.

"If effectively the whole world has a bad year, which it could do, then what happens to the commodity market? It could be that you lose 10 to 15% of global production because bad weather stretches across the world."

Global implications

Unpredictable weather does not only mean possible food shortages, Benton explained. It also has the potential to shake up world markets.

"A recent report by University of England indicates that China over the next decade or so is going to start suffering more significant drought than it's used to and its ability to develop crops is going to go down. As China's been working on being 95% or so self sufficient for food, they realize now they're going to be 85% or 80% sufficient for food," he said.

"That's going to have a major impact on the global market because China is going to want more food and the world will have the opportunity to export to it. But maybe the rest of the

world will not get the food they will want."

Beyond China, lack of security could also penetrate prices and deal a blow to the most impoverished parts of the world.

"If you accept the premise that the world is becoming more variable, what that implies is that the total production of crops is going to fluctuate more. If there's a bad year and there isn't enough food to meet demand, that is going to drive prices up. What is the impact of driving the prices up? Inevitably that will impact the poorest base."

Finding solutions

Based on his research, the U.K. professor said there is no doubt the world will have to learn to live differently. Beyond looking to more responsible consumer habits, farming will need to take a look at its own practices.

"Thinking about the rainfall issues, we need to do much more about drainage issues, making sure that you're control plowing, not plowing against the contours, increasing the carbon in the soil which will retain moisture if it gets drier, increasing efficient irrigation systems," Benton said.

The greater take away, however, is diversification.

"In terms of large scale variability, inevitably we will have to go toward farming systems that are more diverse rather than developing one commodity crop. If it's a bad year, your economy collapses," he said.

"I think more locally diverse farming systems make sense in a world that is increasingly variable. It doesn't necessarily mean we will have a less globalized world, it just means we'll have a lesser area of specialization."

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