

**THE SUNDAY TIMES**

## Corn crisis highlights the end of cheap food

Cargill, the agricultural giant, is looking beyond America's Mid-West to keep the world fed as food prices soar

*Danny Fortson* Published: 15 July 2012



A Nashville farmer shows stricken corn as extreme weather pushes up prices (Seth Perlman)

Across the plains of the American midwest, corn stalks are toppling over — but nobody is scything them down.

The worst drought since 1988 has baked the normally fertile soil into impenetrable pavement, leading to an outbreak of what is known as “rootless-corn syndrome”.

The US Department of Agriculture slashed its corn production forecast by 12% last week. The corn price, meanwhile, has jumped 40% in recent weeks.

Paul Conway, vice-chairman of Cargill, the world's biggest agribusiness, says we better get used to it. “This is the third time in the past five years we've had this type of problem [extreme weather],” he said.

“If you take the influence of biofuels, the ‘financialisation’ of commodities, 1 billion people being lifted out of poverty, the 100-year decline that we have seen in food prices [as a share of income] is probably over.”

Indeed, in the past decade alone, the average price of food, as measured by the United Nations, has tripled. So while spending as a percentage of income in the West

may still be less than 10%, more vulnerable countries are suffering. Egyptians, for example, spend 40% of their incomes on food.

Few have a better view than Conway of the strains on the global food system; Cargill is at the heart of it.

The company's empire stretches from grain elevators in Iowa to wheat fields in Russia and cocoa bean harvesters in Ivory Coast. From its headquarters in Minnesota, the 147-year-old company, still majority owned by the Cargill family, employs more than 140,000 people, and trades everything from carbon permits and oil to frozen orange juice and pork bellies.

It owns hedge funds that trade on the back of the physical products it supplies, and operates what is surely the largest pig-farmer training programme in the world. In the past five years Cargill has schooled 2.5m farmers in China on how to care for the animals and handle the meat.



To keep up with the world's burgeoning population, Cargill plans to extend its reach even farther from its base in the American heartland.

"Since February, 100m tonnes of crops have been lost [due to the bad weather]. For those types of shocks, you have to be global so you can source supplies from where they are," said Conway.

"We need to be bigger in Latin America, bigger in Asia, and like all the other multinationals, we are trying to figure out an Africa strategy."

Indeed. Africa, it seems, is a critical piece of the puzzle — and not just for Cargill. Conway spoke to The Sunday Times on the sidelines of Resource 2012, a conference in Oxford that attracted the stars of global development — from Bill Clinton, the former American president, to Amartya Sen, the Nobel prize-winning economist.

The two-day event was convened to address a seemingly intractable problem: how to balance population growth with the energy and resources that development will require, and cut pollution to stave off calamitous climate change.

The potential of Africa is a big part of the hoped-for solution. The continent holds two-thirds of the world's arable, uncultivated land. And even the land used for crops is farmed so inefficiently that training programmes and rudimentary solutions could vastly increase outputs.

However, the story is similar in many parts of the world, from Russia to India. Conway said: "Average production is so far below the known potential that this argument about whether the earth's potential [to feed people] is tapped out is almost irrelevant."

This is why Cargill plans to spend heavily on some decidedly low-tech programmes, like training Chinese pig farmers, to squeeze more out of the resources already being used.

What it does not plan to do is snatch vast expanses of land, as some did when prices soared in 2008. The most controversial example was South Korea's attempt to buy half of the arable land in Madagascar. The agreement was cancelled after a public outcry.

Hans Rosling, head of Gapminder, the statistical analysis firm, has predicted that by 2100 the global population will have risen to 10 billion. That jump — from 7 billion today — is locked in because by the time the 2 billion children alive now have grown up and had children, plunging infant mortality rates will have ensured that many more of their offspring survive — while the older generations live longer. Rosling said: "Africa will be twice as big as Europe — possibly three times."

However, that is not even half the story. By 2100, according to Rosling, China and India will be home to more than 4 billion people. China doesn't have the farmland to support its people. India does but is plagued by almost criminally wasteful farming techniques. The latter can be addressed. The Chinese, however, will have to get their food from somewhere else.

Conway said: "The fact is that the population is in Asia but they don't have the land. The Americas do. Africa does. In Africa you need clarity of land tenure, infrastructure — a lot of things."

He is hopeful, however, that as Africa's economies develop, the structures will fall into place. "People were saying the same things about Brazil three decades ago, and look what they have done. Why not Africa?"

Cargill, no doubt, will be right in the middle, pushing food around the world's table and taking bites when it can. "We are fundamentalists. We spend a lot of time thinking about supply and demand and have done for nearly a century and a half," said Conway.

And what about the next century and a half? "We will invest more of our money outside of America and western Europe," he said.

### **How a natural resources bull places his bets**

Jeremy Grantham is, in his own words, “bearish on human outcomes”. He puts his money where his mouth is.

The founder of GMO, the \$105 billion (£68 billion) fund management giant, thinks world leaders will fail to stop climate change or put a lid on population growth. So Grantham has placed his bets accordingly.

About 30% of the funds in his Grantham Foundation for the Protection of the Environment, which contains most of his personal wealth, are in natural resources — agriculture, metals, land, coal.

As with other natural-resources bulls, China figures prominently in Grantham’s calculations. It consumes 59% of the world’s cement and 48% of its coal. These numbers will rise. Fertiliser, he said, is particularly tantalising. “Potassium and phosphorus can’t be substituted. They are mined and depleted, and exceptionally unequally distributed. Morocco has 85% of the world’s high-grade phosphorus. Within 30 years this could be the greatest near-monopoly in the history of the world.”

Food is a big worry, especially the meat habit acquired by the world’s exploding middle class.

“1lb of dressed beef displaces 30lb of grain,” he said. “Grain productivity may be reaching a point where, just as horses that have been bred for 5,000 years run no faster than they did in 1920, the big wheat and rice producers have not made any progress for more than 10 years.”