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## World grain shortage predicted

Analyst fears global warming and a lack of fresh water will propel crisis

**Dennis Bueckert**

The Canadian Press

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OTTAWA - The world is on the verge of a grain shortage that will destabilize poor countries, drive up food prices and send financial markets reeling, says a leading U.S. environmental thinker.

**Lester Brown**, founder of the Washington, D.C.-based Earth Policy Institute, predicts climate change and depletion of freshwater aquifers around the world will result in a global food crisis within two years.

"I've been saying for some years now that if the environmental trends of recent decades continue we'll eventually be in trouble," said Brown, interviewed during a visit to Ottawa last week.

"What was not clear was what form the trouble would first take and when. I now think it's going to come on the food front and within the next two years."

Brown, the author of numerous books and winner of many awards, has been described by the Washington Post as "one of the world's most influential thinkers."

He says global grain production has been flat for the last eight years and has fallen short of demand for the last four years.

China's grain production last year was 70 million tonnes below demand -- a shortfall equal to Canada's total grain harvest.

Chinese farmers are pumping too much water from underground aquifers, reducing the water available for irrigation, he said. Meanwhile, temperatures are rising due to the greenhouse effect, reducing crop yields.



**Environmental analyst Lester Brown says the world could suffer a massive grain shortage in the next two years.**

**CREDIT: Bruce Edwards, The Journal**

For every one-degree rise in average temperatures during the growing season there is a 10-per-cent decline in yields, says Brown.

By next year China will be forced to purchase massively from a global market where stocks are already at a 30-year low, causing prices to soar, Brown predicts. Grain is a key input in bread, meat and dairy products.

"At the international level, higher food prices ... could lead to political instability in a lot of low-income countries that import substantial amounts of grain," said Brown.

"That political instability could occur on a scale that would disrupt global economic progress. At that point we may realize that the environmental trends that we've been neglecting in recent decades are going to have to be addressed."

Brazil's agricultural production has been rising sharply in recent years, but Brown doubts that can be sustained and says it won't offset trends in other regions.

He said the fastest-growing wheat markets in recent years have been North Africa and the Middle East, where virtually every country is running up against the limit of water supplies. It takes a thousand tonnes of water to produce a tonne of grain, he says.

"To satisfy the growing needs of the cities, they take irrigation water from agriculture and then they import grain to offset that loss of production.

"The water required to produce the grain imported into that region last year is equal to the annual flow of the Nile River.

"What's happening in fact is that the competition for water is beginning to take place in grain markets.

"Grain has become the currency with which countries balance their water budgets. The whole ball game could change very quickly."

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