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## **BUILDING YIELD POTENTIAL IN A FLAT WORLD**

When Thomas Friedman wrote his best-selling book, *The World is Flat*<sup>1</sup>, it is unlikely that crop production was the center of his thinking. Yet the 10 "flatteners" that have leveled the global playing field, as presented in this "brief history of the 21st century", apply very well to improving yields for today's global agriculture industry. They are listed below.

- 1) Collapse of the Berlin wall. As the symbolic end of the Cold War, this event opened a whole new section of the world as a new market for international trade...including agriculture.
- 2) Netscape. This software package unlocked the power of the Internet to literally the whole world. The explosion of communication potential that resulted suddenly broke down barriers to knowledge exchange, facilitating unprecedented sharing of information about crop conditions, production practices, technology, weather, yields, etc., with neighbors across the section or around the globe.
- 3) Workflow software. Machine to machine communication has been more subtle in agriculture, but is having an impact. From on-board networks built into tractors and harvesters to international networks for grain trading, farmers are impacted by this technology that Friedman called the "crude foundation of a whole new global platform for collaboration". We are just beginning to see its potential.
- **4) Uploading**. Consultation and support are no longer limited to the local Extension office or local dealers. Farmers today regularly get help from "communities" of specialists half a world away...and may not even know it. Technology providers have to maintain 24/7/365 support for a global customer base.
- **5) Outsourcing**. Farmers, traditionally proud of being self-sufficient, are moving toward doing what they do best, and outsourcing the rest, and gaining efficiency and profit in the process.
- **6) Offshoring**. This one may seem like a stretch, but a growing number of U.S. growers are investing in...and even operating...farms in other countries. And the reverse is happening as well.
- **7) Supply chaining**. Technology is changing the picture of where our grain is sold, how it gets there, and the infrastructure of getting inputs to the farm. Gains in efficiency and globalization go directly to the bottom line of the balance sheet.
- **8) Insourcing**. Efficiencies are also gained by combining services, or having service performed by non-traditional agents. Quicker response time, more efficient use of labor, and other benefits accrue to the farmer.
- **9) In-forming**. Information is power, even in crop production. The Internet and the information services it brings to the farm office---or tractor cab---are unlimited. Information comes not just from the local sources, but literally anywhere in the world. Results from research, or new product specifications, can literally be in the farmer's hands the moment they are released. Global access to science and experience.
- **10)** "The Steroids". Who is better positioned than a farmer to take advantage of the digital technologies like cell phones, smart phones, iPAQs, iPods, and other personal digital assistant technologies. They can learn on-the-go, buy inputs, sell grain, and communicate with others from the cab of the tractor—which is probably guiding itself with auto-guidance technology. Global learning, communication, collaboration.

All of these "flat world" changes affect crop production, sometimes in unseen ways, but they are changing the way we do business, the way we incorporate information technology into the production system, and the opportunities for interaction with crop producers and markets around the world for mutual benefits. As Friedman notes, when these 10 independent flatteners converged around the year 2000, the global playing field got much more level, and those who learned to collaborate horizontally across old boundaries gained from innovation and sharing of information, and created a new business model for success. We are in a global production and market system. We need to embrace it and move forward if we want to be a participant. Adapting to the "Flat World" is agriculture's best hope for meeting the global demand for food, feed, fiber, and fuel, with a minimum environmental footprint, and with a sustainable economic benefit to producers.

—HFR—

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<sup>1</sup>Friedman, Thomas L. 2007. *The World is Flat*. Release 3.0. Picador. New York, NY.

Note: Plant Nutrition TODAY articles are available online at the IPNI website: www.ipni.net/pnt