Modernization, Yes, but Follow Agronomic Principles

have often got the impression from many that agriculture has been lagging in terms of its pace of modernization if compared to other industries, but lately I believe these attitudes are changing.

In today's system of globalized food production, it is possible to know a lot about how our foods are produced and processed. For example, consumers can gain a lot of information at the market with a quick scan of a QR or RFID code.

On farms all over the world, many advanced techniques are being incorporat-



ed. The mobile phone is now a popular tool to help farmers make decisions, UAVs are increasingly being used to remotely guide decisions, and newer, higher capacity farm equipment is becoming available to make farmer operations easier and more efficient.

We certainly need modern technology to fulfil our mission to conveniently produce more while protecting the environment. However, we can't forget that new technology should always be aligned with proven agronomic principles. Said another way, everything that is used to grow our food should be based on principles developed by science. Farm machinery, for example, should be built and promoted not just with a mindset of doing more in less time, but should respect local agronomy. A clear example of this is in regions where farmers are using machines to increase the use of broadcast P to optimize the completion of an operation without enough consideration for agronomic drawbacks or negative environmental impacts.

History is full of examples of exciting ideas that have led to wrong decisions and a need to step back and rescue old concepts. So, let's avoid any backtracking and start with a respect for proven concepts when endeavoring to build something "new and improved."

Let's always convey the message that science should drive progress. For fertilizers this means, among other things, focusing on the 4R concept. The principles of using the right source at the right rate, right place, and right time are a must for doing things RIGHT!

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