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What Blockchain Means for the Agriculture and Food Industries

When most people think of blockchain, they think of its application to cryptocurrencies like bitcoin. However, the technology has the potential for much broader uses across a wide swath of industries, particularly including agriculture and food. We are already starting to see some use cases, as there has been a recent surge in large food and retail firms looking to invest in the technology as a means to increase supply chain transparency in the food system. For example, IBM partnered with Nestle, Unilever, Tyson Foods, Walmart, and other food companies to use blockchain to increase traceability and tracking of certain products. Additionally, Walmart is now requiring direct suppliers of lettuce, spinach, and other greens as well as farmers, logistics firms, and other supply partners to join the big-box store's food-tracking blocking starting in 2019.

Blockchain technology is a decentralized, distributed, and digital ledger that is cryptographically secured, and records transactions simultaneously across all of the computers (nodes) in a given network, once the nodes reach consensus on the outcome of those transactions. This makes the chain of records extremely difficult to tamper with or change. The adoption of blockchain and other technologies in the food and agriculture industries will continue to grow as demand for clear, accessible, and authentic data and consumers' pressure on food companies for increased supply chain transparency grow.

With the addition of Frank Yiannas, former Vice President of Food Safety for Walmart, to the U.S. Food and Drug Administration's staff as Deputy Commissioner of Food Policy and Response, there is a great deal of speculation that the agency will require a blockchain technology solution in the future for food traceability and recall purposes. Given the importance of data integrity, the FDA might also consider requiring the use of blockchain technology for compliance with its prior notice requirements for imported foods or for food facility registration.

Related Industries

Blockchain, Digital Currencies & Smart
Contracts

Outside food regulation, agriculture and food system industries participants should consider the following applications of blockchain technology, each of which would be ostensibly more efficient and less costly than the processes that exist today:

- Tracing and tracking livestock for disease or carcass quality purposes;
- Real-time access to commodity prices and market data;
- Managing asset exchange, including transactions and payment, for grain or livestock deliveries;
- Accessing and tracking detailed records about soil quality, field applications, weather, farming practices, and seed type;
- Combating food fraud;
- Verification of supply certifications, such as organic, free-range, grass-fed, etc.;
- Tracking other supply chain transparency issues such as sustainable sourcing, country of origin, or farm labor;
- Managing inventories at retail to reduce food waste; and,
- Providing real-time information to consumers regarding product handling and care.

If your company is considering adopting blockchain technology, Michael Best has attorneys who specialize in agribusiness and the food and beverage industries, who are supported by the firm's Blockchain, Digital Currency & Smart Contracts team and Digital Technology team. These attorneys can help you understand the potential benefits to your business, and navigate relevant legal issues such as data protection and privacy, jurisdictional considerations, and the use of smart contracts, among other blockchain-related considerations.

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