



• Case study

Protecting the Weixian radish

How Kezzler helped RunHui Agriculture bring farm-to-fork traceability to a local delicacy

Introduction

Shandong Runhui Agricultural Comprehensive Development Co. Ltd (RunHui) selected Kezzler to provide a traceability and authentication solution for The National Modern Agricultural Industrial Park in Hanting District, Weifang, Shandong Province, China.

The area is known for agricultural produce such as Hanting watermelons and Weixian radish. Kezzler launched the authentication and traceability solution for Weixian radish in November 2019, with plans to extend it to Hanting watermelons in 2020.

The industrial park, together with Beijing Aokemei Tech & Service Ltd, developed a big data platform to improve product quality, secure the supply chain, and enable consumers to verify the provenance of the products. Kezzler's platform let RunHui Agriculture efficiently develop a unit-level traceability solution, built on Kezzler's patented technology.

Consumers can scan a unique QR code through the popular WeChat application to instantly experience the journey of the Weixian radish from plantation to dining table, and verify the product's authenticity to be reassured it's genuine.



China's push for food safety and trust

According to PwC, **food fraud is estimated to cost the global food industry between US\$30 billion and \$40 billion every year.** Beyond the financial toll, illicit trade in agricultural goods poses a risk to public health, since consumers can be exposed to harmful ingredients. It also harms local agricultural markets, which support sustainable food production and economic development in their communities and beyond.

China has taken active measures to assure food safety and quality. The country set up its first food traceability pilot zone as early as 2011, and in recent years, the Food Safety Law has brought more stringent controls to Chinese food companies. Increased oversight across the entire food supply chain is helping improve food safety from production to consumption.

To restore confidence in home-grown produce and rebuild trust with Chinese consumers, China is adopting new technologies and improving best practices. As a result, the government has approved 20 national agricultural industrial parks. These agricultural parks are helping revitalize local communities through a focus on production, processing, technology, and branding. Their modern production facilities promote sustainable farming and help standardize best practices for planting and breeding, while making the most of new technology.

The National Modern Agricultural Industrial Park in Hanting District is one of the national parks approved by the Chinese government. The project helps optimize quality by establishing a unified, standardized, scientific approach to seed production and planting. With full traceability across the entire supply chain, the park can ensure quality and taste for its consumers, while helping farmers significantly increase both output and revenue.

The Weixian radish, the first product protected by the Kezzler solution, is a well-known local delicacy both in China and abroad. The radishes are rich in nutritional ingredients, and the Chinese government has taken several measures to protect the status of this historical product and the area where it's grown. In 2004, the China Green Food Development Center identified the radish as a green food A-grade product, and in 2006, the region was granted Protected Designation of Origin (PDO) status.



How the solution works

Each radish pack receives a unique, secure, and traceable identity. A label with a unique QR code and a hidden authentication PIN is applied to each pack during packaging. The QR code tracks the radish through the supply chain and lets consumers see the product's journey, while the hidden PIN verifies the product's authenticity. Together, this helps build trust in the brand and eliminate concerns about fraudulent products.

The solution integrates with WeChat, China's popular messaging app, letting consumers scan directly from within the app they already use.

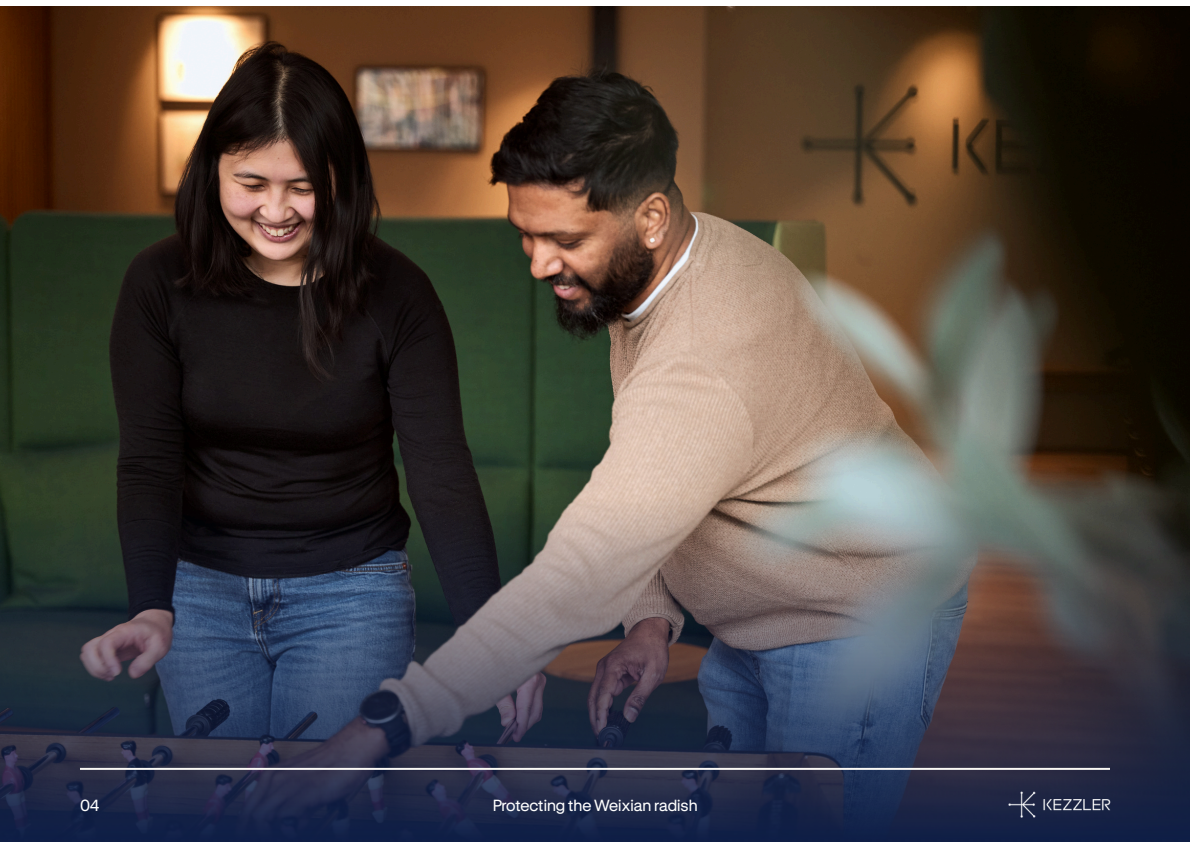


Why Kezzler?

Kezzler's **traceability and authentication solution** integrated quickly with RunHui's existing IT infrastructure and logistical systems, leaving RunHui well-positioned for continued rollout. Kezzler's solution can be used in any industry where unit-level traceability is needed, whether driven by government requirements, consumer demand, or internal factors such as limited product flow visibility or other inefficiencies.

Runhui's main reasons for selecting Kezzler for a traceability project were:

- Extensive experience delivering solutions that **secure the supply chain and build consumer loyalty**
- A **proven track record** scaling to massive-volume serialization projects globally, serializing over 6 billion products in 2019
- A system agile enough to **adapt to future company needs**
- A **local presence** and multiple active projects in China ensure the ability to support deployments of this complexity
- Provides **brand protection and customer authentication**, helping the Industrial Park achieve its goals



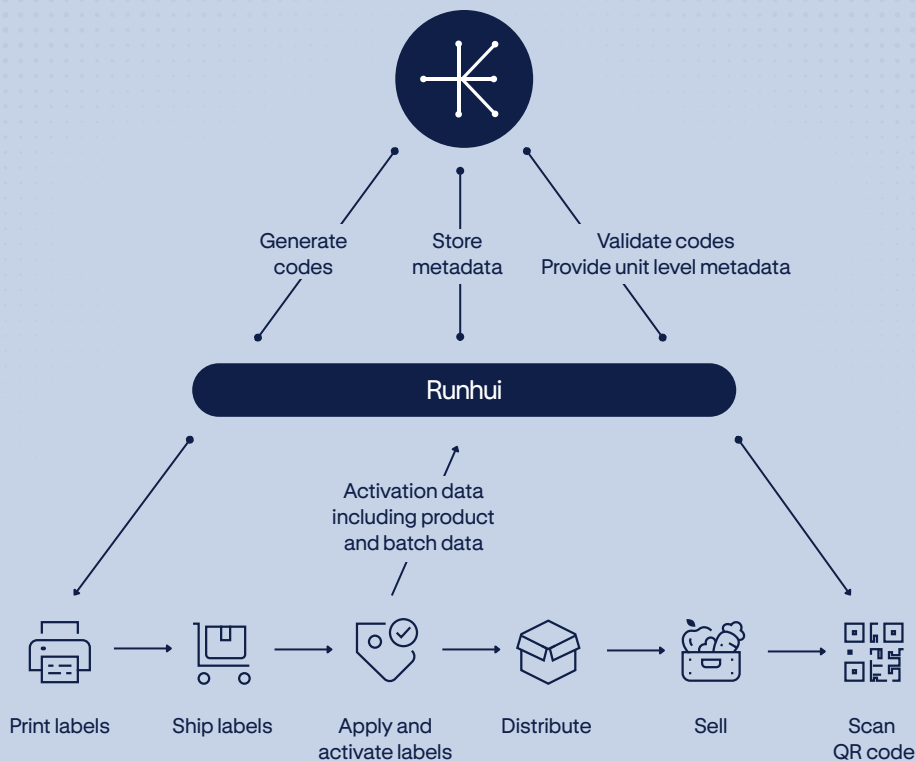
Project overview

In the first phase of the project, Kezzler serialized the production of Weixian radish, made possible by integrating with Beijing Aokemei Tech and Service Ltd, the Industrial Park's Big Data Platform.

Kezzler generates unique identity codes for RunHui, who then share this information with the local label printing vendor. The printer prints the codes, updates the roll information, and ships the labels to the Industrial Park.

The packaging line receives the labels, where all upstream information about the radishes, such as batch, farm, picking dates, inspection, and testing, is linked to each individual pack. Once the codes are activated, the integration with Aokemei ensures every pack holds all its relevant data in one central system, enabling full traceability.

The radishes are then distributed through various supply channels to retail stores and online customers. Upon receiving their radishes, customers can scan the product using a mobile phone, either through the popular WeChat application or a standard QR scanner. By scanning the unique Kezzler QR code and entering the hidden PIN, consumers get an immediate way to confirm the radishes' authenticity. Within milliseconds, RunHui validates the Kezzler code and delivers the associated metadata to the consumer, giving them the full traceability story from seed to dining table.



System integration

One reason RunHui chose to work with Kezzler is the efficient integration process with their existing production and distribution partners. Kezzler's solution can flexibly integrate between Kezzler solutions and third-party systems in customer-defined formats. Using Kezzler's extensive REST API library to build integrations with Aokemei's existing Big Data platform, we enabled RunHui to share information and the traceability story directly with their consumers.

Why unit-level traceability?

- Well positioned to meet future government traceability requirements
- Able to fulfill growing consumer demand for transparency
- Reduced business risk: product integrity is ensured, brand value is protected, and the supply chain is fully secured
- Loyal customers and increased sales through a stronger product experience
- Rich consumer and consumption insights
- Supply chain efficiency gains with unit-level visibility, end to end
- Enables authentication for consumers, promoting food safety
- Insights that drive improvements to internal processes, such as detecting unauthorized distribution and enabling more targeted recalls

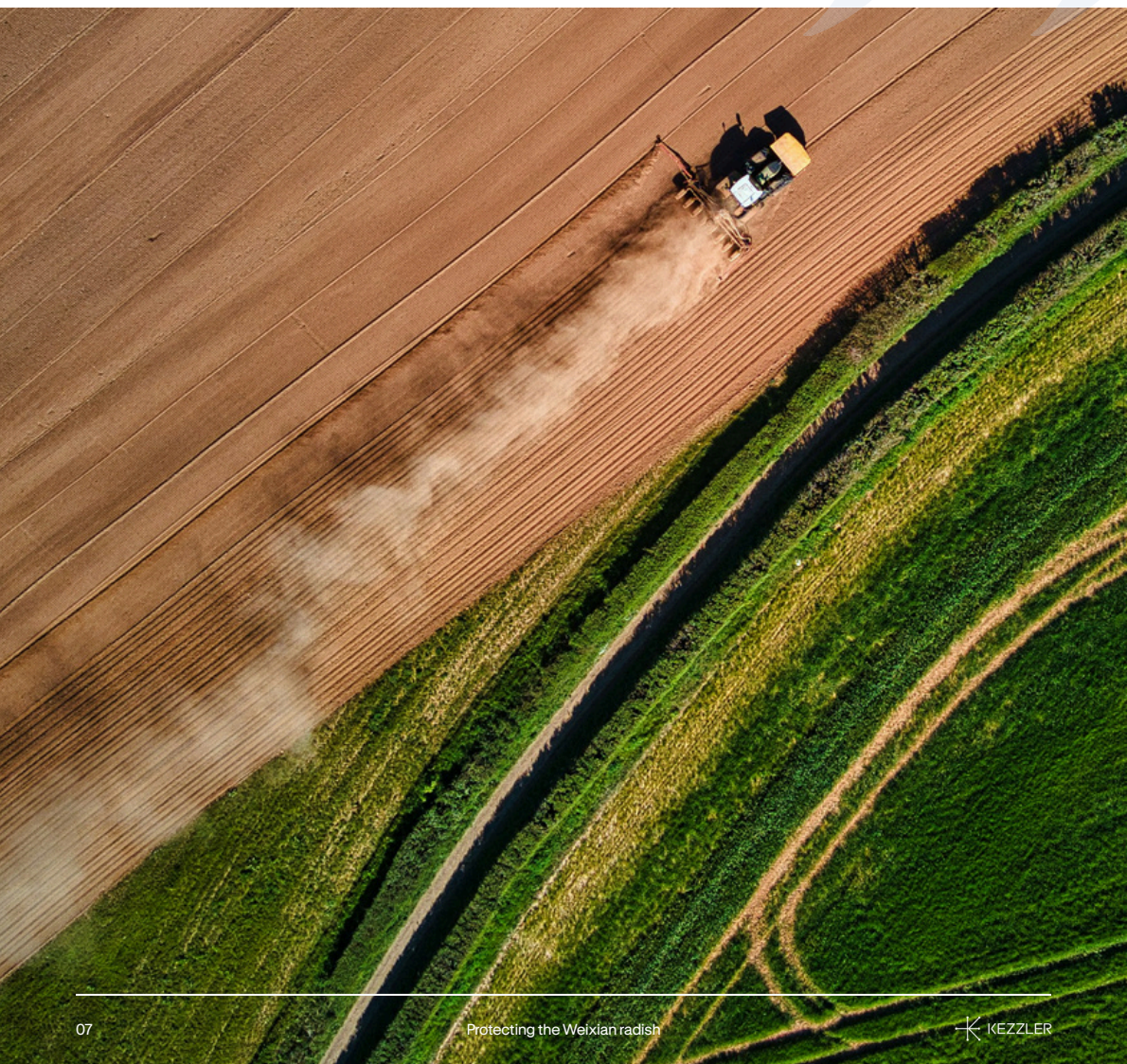


“We were impressed with Kezzler’s technology and the speed and ease at which it could be integrated with our existing digital infrastructure. This enabled us to create a connected and visible supply chain to support the objectives of the Industrial Park. The solution helps ensure that our supply chain has the responsiveness to maximize productivity based on data collected and deliver high-quality and safe products. A quick and easy authentication process reassures consumers that they have purchased genuine Weixian radishes, protecting the reputation of the Weixian brand and the economic growth of the region. We look forward to our continued collaboration with Kezzler in the future.”

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