

China Mandates Unique QR Codes for All Seed Labels



An APSA delegation of Chinese seed traders on a recent study tour in India examine seed label printing at VNR Seeds' factory in Raipur, where the cost of production is already drastically lower than in China, where production base costs are set to rise even more.

Production costs for crop seed companies dealing in the Chinese market are poised to rise significantly as a result of a new regulation mandating that unique QR codes be added to labels on every single packet.

Published by the Ministry of Agriculture on 18 September, last year, and enforced as of 1 January 2017, the “QR Code Rules for Crop Seed Labels” is part of an administrative measure by the Chinese Government to improve traceability of all crop seeds and eradicate their illegal trade in accordance with the Seed Act.

APSA Immediate Past President and GM of Celestial Seeds, Wang Zhiping, who is part of a working committee advising and assisting companies in the implementation of the new regulation, summarised the requirements.

“The QR codes for crop seed labels should be unique. One QR code should correspond to one minimum sale unit or packet”, he said. “Once a

QR code is used for one seed packet, it can't be used again”.

While the MoA has not specified any grace period or penalties for companies who fail to comply, according to Section 9 of the Seed Act, violating label requirements may incur fines of between RMB2,000 (\$289) and 20,000 (\$2,894) per instance.

Moreover, goods deemed as “fake” or “illegal” may be subject to seizure and confiscation.

Ms. Wu Xiaoling, Deputy Director of the Department of Seed Management, MOA, explained that the onus of generating, printing and managing the QR codes is entirely on seed companies.

“Companies must design and generate the QR codes and corresponding tracking URLs in accordance with the guidelines (see right). Government agricultural departments and seed management institutes won't designate or entrust any person or company to design software, QR codes or tracking

URLs”, she affirmed.

Ms. Wu went on to explain that QR codes can be printed and produced in various ways using existing software and services, whether paid or free, and can be done by a packet printing company or by seed producers themselves, who are permitted to affix the printed code to a seed label after the label is printed.

However, she was adamant that companies need to ensure that each QR code can be scanned by both PC and smartphone scanners, and that they won't fall off the label if they are printed separately.

While creating unique QR codes is a fairly simple procedure, the requirement to generate one for every single seed packet may prove to be tedious and costly, requiring more advanced production techniques, including the utilisation of jet ink printers, which may require a substantial investment from companies.

The head of one seed company who



Staff of Hybreq Seed hold up packets of seeds with the newly required QR Codes. The new requirement will increase production costs by as much as RMB1 per packet, but it will also address fake seed trading.



A staffer from Jiangsu Zhongjiang Seed Co., Ltd. shows his regulation-compliant seed packages.

asked not to be named, told *Asian Seed* that in order to comply with the new rules, his company needed to invest in 16 high-calibre jet ink printers, requiring an initial investment of RMB800 thousand (US\$116,000), which doesn't factor in maintenance costs of the equipment.

Companies not ready or unable to invest in new and sufficient printing equipment may consider outsourcing.

Mr. He Zhili, General Manager of Shenzhen Sangye, an APSA member who specialises in seed packaging production in China, confirmed that production costs will increase significantly in order to meet the new requirements.

"Our company has conducted some test runs with a RMB40 thousand (\$5,700) multi-nozzle, inkjet printer, and we found that we had to clean the nozzles every five days. Then there are the costs of the cleaning chemicals and replacement of the nozzles, which can add up quickly depending on the capacity required".

According to his estimation, the cost will increase by no less than RMB0.05 (1 US cent) per packet.

Calculations by Mr. Wang Huasheng, General Manager of Hainan Haikou Yongfeng Huasheng Seeds, also underline reduced profit margins.

"For conventional vegetable seed varieties, packaging costs range from 0.3 to 1RMB (4-14 cents) per packet, and the profit margin is around 0.05-0.3RMB per packet (1-4 cents). To add unique QR codes to each packet, we estimate our costs to increase by, on average, 0.04RMB (1 cent) per packet."

On the plus side, unique QR codes will enable companies to have better inventory management and increased quality control over their products.

Since this regulation will drastically improve the traceability of all seeds on the market, it may prove to be an effective measure to help eradicate fake seeds and illegitimate traders, who also negatively impact the bottom line of legitimate companies. 🌱

Crop Seed Label QR Code Guidelines



This is what a QR code looks like. The new requirement in China stipulates that the code on seed packet labels has to use black ink. Using a QR Code scanner app, scan this code to view a list of the full guidelines.

- One single-use QR code is required for every packet sold. Once used, it can never be used again.
- The QR code must embed the following four items: 1) Name of the variety; 2) Name of the production company or the import company; 3) Unit Identification code; and 4) a trace URL.
- The tracking URL must list the four points in sequence on separate lines and these points must be consistent with information printed on the label, and consistent with information in the seed variety's administrative license and registration.
- The Unit Identification code is a unique code differentiating each minimum sales unit (packet). It must be limited to 20 characters, can be a combination of numbers and characters, or purely be numbers. It can be the same as the original product code or can be a new code, but it must be generated and managed by the seed companies themselves.
- Seed companies are responsible for generating, managing and guaranteeing the tracking URL and its effectiveness. Customers can use this URL to trace the seeds processing lots and logistics or sales information. The URL should be accessible by PCs and smartphones.
- The QR code information must not have misleading and promotional information.
- The design of the two dimension code should comply with all other existing parameters for QR codes.
- The size of the QR code can be determined according to the size of the packet, but should not be smaller than two square centimeters.
- The printing of the QR code should be clear and complete, and should be legible for scanners.
- The QR code should be black with a white background. The background area should be at least 2 mm larger than the code area.

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