

TRACKING HONEY PATHWAYS

from hive site to distribution

Work by the CRC for Honey Bee Products has brought the Australian honey industry quality assurance program into the digital age.

There is a growing appreciation of the importance of honey bees and their contributions to food security, and increasing numbers of beekeepers. Australia needs new tools and systems to ensure we maintain our exemplary bee health and production of quality honey bee products.

B-QUAL, established by the Australian Honey Bee Industry Council in 1999 as a traceability tool, is an independently audited quality assurance program. It provides businesses with product integrity, quality assurance, regulatory compliance, industry best practice, and supports biosecurity, for ease of access to domestic and export markets.

In 2018, there were allegations, subsequently disproven, of adulteration of Australian honey. The episode harmed the industry and highlighted the need for an improved traceability system. The CRC for Honey Bee Product established a partnership with B-QUAL Australia to create a new online system.

'In the past, B-QUAL was paper-based, meaning it was time consuming to interrogate and to trace back into the supply chain,' says Professor Sharon Purchase, the CRC's partnership leader from the University of Western Australia.

As well as tracking honey batches to their origins, the digital system brings many additional benefits. It is a secure platform for business data management, for audit purposes and business benchmarking.

'Australia is vast. Each region is so different. To continuously improve, beekeepers may want to compare their productivity with other beekeepers working in the same region. B-QUAL lets them do this,' says Professor Purchase.

Beekeepers will be able to download data to study apiary site honey yields over time, and to explore climate effects such as temperature and rainfall.

The system can provide insights to the impacts of resource security, such as forest logging, burn intensity and the vegetation recovery rate, which will help with hive placement planning.



CRC HBP
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Beekeepers participated in development of B-QUAL, as did AUS-QUAL Pty Ltd, who monitor quality assurance compliance across Australia.

'Digitisation should reduce members costs through less time spent on site audits,' says Mr Don Muir, B-QUAL director.

'The ability to trace Australian honey sources will also inherently increase biosecurity benefits for the industry by way of tracking disease or pest outbreaks through biogeographical regions,' says Mr Muir.

The B-QUAL system will provide an early warning system to detect new incursions of bees from overseas, which could introduce potentially devastating pests and diseases. Australia is free from many exotic pests and viruses, like Varroa mite, Asian honey bee and deformed wing virus. Surveillance is important to ensure any biosecurity incursions are detected and dealt with swiftly to protect the industry.

The B-QUAL system also includes a honey bee flora reference library. By accurately recording flowering history and nectar and pollen production, beekeepers are creating an invaluable resource that will help their business in future.

During consultation on the B-QUAL digitisation, industry representatives suggested that smaller beekeepers would benefit from a digital system that would help with their traceability and beekeeping practices. This led to the creation of B-Trace. The program involves self-auditing, so is cheaper, and records biosecurity observations that are critical for maintaining Australia's bee health.

Membership of B-QUAL has doubled since the formation of the partnership between the CRC for Honey Bee Products and B-QUAL Australia.

The CRC partners are working on extending the B-QUAL system to include a new function that details honey chemistry to capture information on the provenance of honey. This will provide consumers with the assurance that every time they purchase Australian honey, they are getting what they paid for – a unique, high-quality product. It will also provide Australian beekeepers with a competitive advantage as Australian honey is pure, geographically diverse and sourced from healthy bees.



Beekeeping standards



Resource tracking



Biosecurity



Traceability



Benchmarking



Quality product



Australian Government
Department of Industry, Science,
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