

BEEKING: DIGITAL APIARY MANAGEMENT

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BeeKing is a digital note-taking and work planning mobile application aimed at improving the efficiency of apiary management for beekeepers. The tool allows the recording of a beekeeper's observations and actions at the apiary, with the help of voice recognition technology on a smartphone and near-field communication (NFC) sensors attached to hives. The users can consult and organise the registered data, and interact with other beekeepers on the internet support platform.

The tool helps beekeepers improve their work efficiency. It enables more accurate and systematised monitoring of apiaries, as it substitutes for manual note-taking which can be time-consuming, inconvenient and incomplete. This digital beekeeping assistant records the status of colonies and queen bees, keeps notes on Varroa mite treatments, records the amount of collected honey and pollen, and other information.

Therefore, it also serves as a decision-making support tool: the beekeepers can learn from their observations and make better-informed decisions on the basis of a more thorough and systematic overview of the situation and interventions made in their apiaries.

The forum for beekeepers' networking aims to facilitate their knowledge exchange, mutual learning and co-working.

Application scenario

Effective apiary management and informed decision making to ensure the wellbeing and production of bee colonies in hives

Digital technologies

Mobile application, speech recognition and near-field communication (NFC) sensors to register information, cloud storage, online forum for users' support and networking

Socio-economic impact

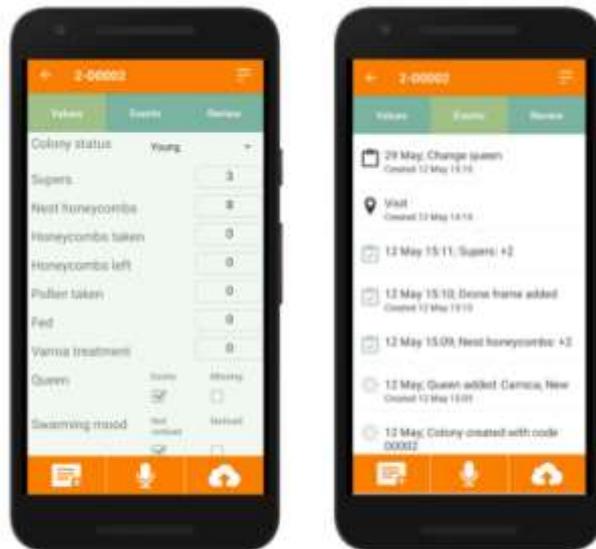
- Economic: work organisation, planning, efficient management, tracking data optimisation
- Environmental: saving resources, for example chemicals for mite treatment due to improved monitoring, bees' welfare
- Social: beekeepers' networking and mutual learning

More info: <https://beeking.eu/en>



Purpose of the tool

The mobile application BeeKing was developed to support beekeepers' work at their apiaries. Beekeeping requires regular monitoring of bee colonies in hives to ensure their wellbeing and production with timely and appropriate interventions. The application eases note-taking of observations and actions made in an apiary and at each hive, as it replaces manual writing by data recording with voice and NFC sensors.



Source: www.beeking.eu

Description of the tool

The hand-free tool allows beekeepers to record notes of their observations and actions on a smartphone while working in an apiary. The beekeeper's speech is automatically transcribed into text that is stored on the cloud for further processing and use. Registration of the performed activities at each hive can be done also with the help of near-field communication sensors attached to the hives. The data are accessible on an internet portal where the beekeeper can have an overview of all the interventions and observations made in the apiary and each hive. The next tasks can be planned and scheduled on the app accordingly. The internet portal also includes an open forum for user support and networking: registered app users can share their experiences and knowledge with their peers.

Areas of socio-economic impacts

- Social** | Enable beekeepers' networking and mutual learning, create a community.
- Economic** | Improved monitoring, work planning and decision-making in apiaries that allows to increase work efficiency and reduce costs.
- Environmental** | Saving resources due to improved monitoring, improved honeybee welfare.