



The Melbourne City Rooftop Honey Buzz

Sweet Success on Rooftops

Interview by Angelia Sia
Photography as credited

In Australia, around 65 percent of agricultural production depends on pollination by European honeybees. There are 35 industries that are dependent on honeybee pollination for most of their production.

Pollination is an ecosystem service that is essential to agricultural, horticultural, and forage production. In fact, most animal pollination is done by bees. In the United States of America alone, honeybees pollinated USD 12.4 billion worth of directly dependent crops and USD 6.8 billion worth of indirectly dependent crops in 2010.¹ However, bee populations are seeing a declining trend, and bee conservation groups are responding by promoting community efforts across the world, such as for individuals and other groups to grow bee-friendly plants, to recover their local populations.

CITYGREEN uncovers the hive of activity surrounding urban beekeeping in Australia, through a conversation with Vanessa Kwiatkowski and Mat Lumalasi, founders of the Melbourne City Rooftop Honey project. The aim of this organization of beekeepers is to raise awareness of the vital role that bees play in our ecosystems. Through bringing bees back to the city and suburbs, it hopes to address sustainability issues in Melbourne and be part a global effort to help save the honeybee from the various threats of disease and human habitation.

CG: *CITYGREEN*

MCRH: Vanessa Kwiatkowski and Mat Lumalasi, Founders of Melbourne City Rooftop Honey

CG: Can you please share with us the science behind honeybee conservation?

MCRH: With the collapse of honeybees in 2007 around the world, the Asian Bee threat, and the Varroa mite at our doorstep, a serious risk to our natural food supply is taking place. The honeybee plays an important role in the sustainability of the food supply chain as the species is the key to the pollination of the agricultural and horticultural crops that ultimately produce a very large proportion of the food that we all eat. It is often said that for every one in three mouthfuls you should thank the bees!

In Australia, around 65 percent of agricultural production depends on pollination by European honeybees. There are 35 industries that are dependent on honeybee pollination for most of their production. Crops vary in how much they rely on or respond to pollination by bees. Some industries, such as almonds, apples, pears, and cherries, depend almost totally on bees for fruit and nut production.

Due to the large number of wild European honeybees in Australia, the ecosystem service of pollination provided by bees and other pollinating insects is not widely recognised or valued. The potentially devastating impact of exotic pests, such as the Varroa mite, which has yet to reach Australia, poses a significant threat to honeybees and pollination. Beyond the immediate economic role that bees play, they are also essential for biodiversity as pollinators of flowering plants.

We place our hives by utilising unused roofs, balconies, and gardens. Melbourne now joins the likes of London, Toronto, San Francisco, Paris, New York, Hong Kong, and many others, where urban beekeeping is thriving. The community benefits by some true “local” produce—a delicious tasting honey that is unique to each site, with less actual food miles, plus that helps to green our City of Melbourne.

CG: How many rooftop hives does MCRH manage currently? Why are city rooftops good venues for urban beekeeping?

MCRH: At present, we have 73 hives that we manage in and around Melbourne. We have found the rooftops to be preferable as they are often underutilised spaces where placing a hive would not be in the way. We find that the bees usually travel at the height of the hive to their destination, making it perfectly safe for the public below, which usually doesn't realise that there are hives up above.

We install, maintain, and care for the honeybee using natural beekeeping methods. All of the hives have been re-homed from swarms



1. Full inspection of the hive, that includes a brood nest, in a residential private garden in Ascot Vale (Photo: Hayley Carr).

2-4. Bee Village at Federation Square—Planter boxes play an important role in providing some wind and sun protection. Sprinklers attached provide essential water to the plants and bees. Synthetic grass further provides protection from sun/heat reflection on the roof (Photos: Melbourne City Rooftop Honey).

In Paris, after analysing a honey sample from the city, it was discovered that [the sample] contained more than 250 different pollens. In the countryside, there can be as few as only 15 or 20 different pollens.

caught by us. Each hive is checked approximately every 10 to 14 days in the season. During the winter months, we generally leave them alone, but only after we are confident they have enough stores to survive during this period.

Currently we have more than 380 individuals and businesses wanting to get involved by adopting or sponsoring a hive, to be placed in private and community gardens, as well as a dozen individuals within 5 to 10 kilometres of the Central Business District (CBD) of Melbourne. This is an opportunity for people to get involved and learn about beekeeping, as well as share a portion of the honey in return for the gesture. We extract the honey, raw and unprocessed, which we will do at the various restaurants that have kindly donated their kitchens to support the cause. Individuals can purchase their own local honey, with the balance being sold back to the local community for pick up at nominated collection points.

CG: Does rooftop beekeeping support neighbouring green roofs and vertical greenery?

MCRH: Most definitely. Depending on the type of plants used in these setups, having bees around may even be integral to their success. For instance, if the garden or vertical wall is edible or uses productive plants, then having bees in the vicinity is needed for pollination. Any gardener will notice the improvement in yields by having bees present.

CG: Do you work with the City Council or any other agencies to provide more planting in and around the beekeeping areas?

MCRH: We are currently working on a collaboration with the City Council and The Lemon Tree Project to get the public to adopt a tree to plant in a community space.² We'll be providing bee-friendly companion seeds as our contribution.

We do publicise for people to help support bees by planting bee-friendly plants, as not all plant flowers are liked by bees equally. They prefer blue, purple, and yellow flowers, such as the flowers of

bottlebrush, dahlias, grevillea, and roses. In addition to nectar, bees are attracted to flowers with pollen. We manage information on bee-friendly plants on our website.³ The City of Melbourne has approximately 25,000 native and 25,000 exotic, or non-native, trees in streets and parks around the municipality. We also have numerous parks, reserves, and individual gardens in the city. In Australia we are so lucky to have so many native and non-native plants—bees can forage almost all year round.

In other cities of the world, urban beekeeping is thriving, with city hives producing more honey than their country friends. Studies in Paris have shown that urban bees do not have to travel as far and live twice as long as their country cousins. The main reason for the success of urban bees is the variety of flora growing in the city, compared to what is now present in much of the countryside, which often has just one crop dominating an entire area. When that has finished blossoming, there is no more nectar for the local bees. In Paris, after analysing a honey sample from the city, it was discovered that [the sample] contained more than 250 different pollens. In the countryside, there can be as few as only 15 or 20 different pollens.

Although Melbourne has a shorter season for beekeeping than other warmer states, it has a great diversity of nectar and pollen for our bees, including a mix of natives and European flora, which means there is almost always something for our bees to forage on. Our hives in the CBD are thriving and living proof of that. Bourke Street in the CBD was the first hive we harvested out of our hives. A full box of honey was left on them for Winter—we also do not feed our bees sugar but let them eat the honey they work so hard for. By the first openings in Spring, there was a full box of honey, eaten and replaced during the cooler months. Honeybees are especially important for pollination in Victoria. We do not have any native, social-forming colonies of bees, only our beautiful solitary native bees.

CG: What's the potential economic return, in terms of produce per year, for MCRH?

MCRH: The project was never intended to be financially profitable.



The concept was initially a hobby that attracted huge interest and eventually had to be reassessed and remodelled in order to be financially sustainable. This was done with the implementation of the sponsorship system. The sponsorships are used to cover the costs of running the business and the honey is considered a “bonus”, which is sold back to the public.

This season, we have harvested almost one tonne of honey from our established hives around Melbourne—“established” being those placed in the last two seasons, not hives placed this season. All of these hives have produced honey, in comparison to their rural cousins, whom beekeepers are now predicting will produce 80 percent less in volume this season.

CG: What are the advantages of urban beekeeping over rural bee farming? Are there any differences in the way the bees are managed?

MCRH: In a rural setting, an apiary site can contain up to thousands, whereas our apiary sites are usually in the order of ones and twos. The most we have in one site is 10, at Federation Square.

We do not move our bees to follow flora. They stay and forage from their local environment, between two to five kilometres from their hives.

We have the responsibility to be more attentive to the bees in a built-up, urban environment, as mismanaged bees could quickly

become a problem for other people. We have to be vigilant with our swarm control in the swarming season and make sure the bees have enough room to expand happily, as well as carefully assess the temperament of a colony to be sure that it is safe to deploy into an urban environment.

CG: Were there any past success stories that inspired you in your work at MCRH?

MCRH: The project was conceived as an extension of our own backyard beekeeping and as a way of bringing bees back to the city, building community, and connecting people with their food. Part of the success of this venture is that it moves beyond the practice of beekeeping to act as conduit for placemaking, by helping to coalesce local identity around issues of sustainability. By having a small-scale enterprise, we are able to maintain control of the project and focus MCRH on serving as a practical example of sustainability practice and an avenue for the promotion and advocacy of sustainability practices.

When we started this project, we were not aware of anything else like it happening and we were happily surprised when we read about such things from around the world like the Paris Opera House and New York City beekeeping movement. In this way, we see ourselves as part of a global movement towards the localisation of food systems, which has a strong emphasis and ethic of social awareness and community. Since we began, we have seen a huge uptake in other cities around Europe and the rest of the world.



5. Getting the bee smoker ready to open a hive in a residential private garden in Ascot Vale (Photo: Hayley Carr).

9. Healthy brood, pollen, and honey stores at a private residential garden in Ascot Vale (Photo: Hayley Carr).

6. Opening a hive in a residential private garden in Ascot Vale (Photo: Hayley Carr).

10. Collecting some lemons pollinated by the bees living under the tree in a private residential garden in Ascot Vale (Photo: Hayley Carr).

7. A healthy strong hive in the middle of the season in Ascot Vale (Photo: Hayley Carr).

8. Detailed inspection of a frame in a residential private garden in Ascot Vale (Photo: Hayley Carr).

11. Inspecting the bees placed on a rooftop of a Coffee Roaster in Abbotsford, Coffee Supreme, during a mentoring session (Photo: Justin Emerson).



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12. A full brood and honey frame used during a mentoring session in East Melbourne (Photo: Justin Emerson).

13. Inspecting a hive in East Melbourne during a mentoring session (Photo: Justin Emerson).

14. Hive established at Trunk Restaurant & Diner, Exhibition St. (Photo: Justin Emerson)

15. A honey frame and hive placed on a restaurant, La Luna Bistro in Carlton (Photo: Lachie Mathison).

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CG: In what ways do you engage the local community?

MCRH: We encourage all people to get involved in any way possible. Where possible, we try to teach people how to keep their own bees and join our “army” of pollinators. We also encourage the general public to plant bee-friendly plants to attract bees to their gardens and supply food for the bees.

For the people who want to get involved, we have the two options of sponsorship and adoption. Sponsorship involves a yearly maintenance fee, typically for businesses, that is payable to MCRH, which goes towards the servicing of the bees during the honey season. We supply everything and the sponsor receives a percentage of the total honey harvested. Adoption is basically the same, but for people who are not in a position to pay the annual fee (i.e., community gardens). Adopters thus have a hive at the roofs or gardens of their homes for free. We look after the bees and provide the housing, and the host gets a portion of the honey if they make some for the season while any balance is distributed and sold to the local community.

We use social media as a platform to engage, educate, and build the community, and have a good following on Facebook and Twitter.⁴ We also host events, public screenings of documentaries, and presentations to visitor groups, including gardeners, schools, and environmental or sustainability groups. We welcome anyone who is interested in hearing about our work and the importance of bees.

CG: What have some of the challenges you have faced working as a beekeeper?

MCRH: We have had a huge acceptance for our project. The main challenge would be convincing restaurant owners to let us have bees in the vicinity of the public. We pointed out the common misconception of bees needing to be isolated for safety. [Bees usually travel at the height of the hive to their destination, making their presence perfectly safe for the public below.] Having a potential host come and visit an example site is all it usually take to alleviate and hesitation and questions.

Environmental factors like the weather is a challenge at times. It is either too cold for the bees or it is too hot for bees and humans in those suits!

No matter what people tell you from their experience, you just have

to learn from your own experiences. There are a lot of opinions out there—just a matter of finding what works for you and your bees.

CG: What is your growth plan for MCRH? Do you foresee expanding your urban beekeeping knowledge overseas?

MCRH: We plan to have a hive in every suburb at least, preferably more. We would like to build a network of rooftop beekeepers all over the world who can collaborate and share knowledge and skills. We definitely believe that there is a big future in urban beekeeping worldwide. As people become more self-sufficient and interested in their food supply, we will need pollinators to complete the cycle.

Looking to the future, as we expand on concepts of growing food in our cities and making them cooler, greener, and more sustainable, it will be vital to protect honeybees and include them in our cities and sprawling urban landscapes. Some wonderful programmes that do so include HK Honey, NYC Beekeepers, and Capital Bee Program. At the moment, we are looking into setting up “Rooftop Honey” in some other states of Australia to see how the model will work outside of Melbourne.

CG: Are there key points that cities should take note of in starting such initiatives?

MCRH: There is a lot of unutilised space in cities, like on rooftops, where bees tend to fare well and are out of the way of human traffic below. Safety is important when working with heights. Beekeepers must consider the weights of the hives as well as how one manages the maintenance tasks. 

1 Ramanujan, Krishna. 2012. “Insect pollinators contribute \$29 billion to U.S. farm income.” *Chronicle Online*, May 22.

2 The Lemon Tree Project encourages individuals to plant a lemon tree on their streets as community resources. More information is available on <http://thelemonproject.com>.

3 Melbourne City Rooftop Honey. “Bee Friendly Plants.” Accessed April 12, 2013. <http://rooftophoney.com.au/plants.html>.

4 As of April 2013, Melbourne City Rooftop Honey has 1,560 followers on Facebook (<https://www.facebook.com/pages/Rooftop-Honey/173207916033578>) and 3,880 followers on Twitter (<https://twitter.com/rooftopbees>).