2 a. 11 2 ca 11 **2** 11, 1 2 2 1, 1 1 a 2 1 a 11 a

Postal Address: PO Box 181 Strathfield NSW, 2135, Australia



#### **Registration Incorporation No:**

INC1600698

Email: kurdishlobbyaus@gmail.com

Website: www.kurdishlobbyaustralia.com

# INITIAL REPORT ON KURDISH LOBBY AUSTRALIA'S DONATION OF A FLOW HIVE TO THE UNIVERSITY OF SULAIMANI, KURDISTAN REGION OF IRAQ

#### **INTRODUCTION**

This report provides an overview of:

- The value of bees;
- The honey industry in the Kurdistan Region of Iraq;
- The Flow Hive; and
- Kurdish Lobby Australia's donation of a Flow Hive to the University of Sulaimani in Dec. 2018

#### THE VALUE OF BEES

Healthy bee colonies are a good indicator of ecosystem health and benefit food production. Bees pollinate one third of all that people eat, as well as plants that feed livestock and wildlife. Having more bees increases crop, vegetable and fruit yields, and the cross pollination of wild grasses, trees and flowers. Having more trees and native grasses conserves water retention and enhances the water cycle.

## THE HONEY INDUSTRY IN THE KURDISTAN REGION OF IRAQ



Map of KRI, 2014 - 2017

Beekeeping in the KRI has been practiced for thousands of years. Today, there are about 10,500 beekeepers and 500,000 beehives in the KRI. In 2016, they produced 950 tons of honey, but only 300 tons in 2017, when the KRI's annual domestic demand is 1,350 tons, and demand in the rest of Iraq is 2,450 tons.

Kurdistan beekeepers won an international honey competition in 2009, 2015 and 2017, the last including honey from Australia, France, Italy, Greece and China.

**Postal Address:** PO Box 181 Strathfield NSW, 2135, Australia



Registration Incorporation No:

INC1600698

Email: kurdishlobbyaus@gmail.com

Website: www.kurdishlobbyaustralia.com

Weather and the abundant variety of wild flowers and trees contribute to the quality of the Kurdistan Region's honey, giving rise to a high demand for KRI's 'pure' or 'natural' honey across the Middle East. The Kurdistan Regional Government's Ministry of Agriculture and Water Resources predicts that the KRI could easily cater for one million hives, which would theoretically double <u>production</u>, but for this to occur, much needs to be done.

Factors negatively impacting bees and beehives around the world, including in the KRI, need to be addressed. Measures include a reassessment of mono cropping and the use of pesticides, especially as pesticides in the KRI do not comply with international standards, and action against habitat loss including deforestation, the invasion of bird species that eat bees, and other insects, parasites and pathogens that cause disease, etc. Such actions are critical given that the KRI honey industry was badly affected by the destruction of beehives during the 1970s and 1980s as a result of the expulsion of people from the large areas of land along the borders, and in Kirkuk, armed conflict between Kurdish Peshmerga and the Iraq regime, the regime's use of chemical weapons, airstrikes and ground offensives, the Iran-Iraq war of 1980 – 1988, and when peace returned in the 1990s, an international embargo on Iraq and an Iraqi embargo on the KRI, leading to people cutting down trees for fuel, thus reducing the suitable forage for bees. Otherwise, bees imported from Iran have introduced pests and diseases, while the honey industry continues to be threatened by frequent Turkish airstrikes that cause beehive keepers to stay away from the mountains where many keep their hives.

In Kurdistan today, one hive produces between 10 and 40 kilograms of honey a year. There are three qualities of honey. The best quality is from wild bees that feed from wild flora. This honey retails for USD\$100 per kilogram. The second most prized honey comes from hive bees that forage on wild flora, which has a wholesale price of between USD\$25 and \$38 per kilogram and retails for USD\$63 per kilogram in 2018. Both these honeys are classified as 'pure' or 'natural' honey. The poorest quality honey comes from bees fed on sugar, which retails for USD\$6 per kilogram.

The beekeeper sells direct to the retailer, and is also challenged by costs and bureaucracy when relocating hives. If workers are employed, the cost of producing a kilogram of honey includes wages, materials and transport. Just to relocate a beehive involves a lot of bureaucracy. At numerous checkpoints, paperwork proving ownership, licence requirements, and permits to relocate needs to be shown.

## **FLOW HIVE**

The Flow Hive is an Australian invention that has revolutionised the process of harvesting honey. A father and son team, Stuart and Cedar Anderson, thought there must be a better way to harvest honey given that the traditional way is time consuming, with the hive needing to be smoked out, cracked open and the frames removed. Each frame needs to be uncapped and spun in a centrifuge to spin out the honey, which then needs to be filtered for wax and bee bits. Then the frames need to be cleaned and reassembled in the hive. During this procedure bees are killed and disturbed bees can sting the beekeeper.

After years of working on prototypes the Andersons developed a prototype that consisted of separate food grade 'plastic' (polypropylene and co-polyester) frames free of all bisphenol compounds. Each frame consists of vertically paired rows of partly formed honeycomb cells. Bees line the cells with wax,

**Postal Address:** PO Box 181 Strathfield NSW, 2135, Australia



# Registration Incorporation No:

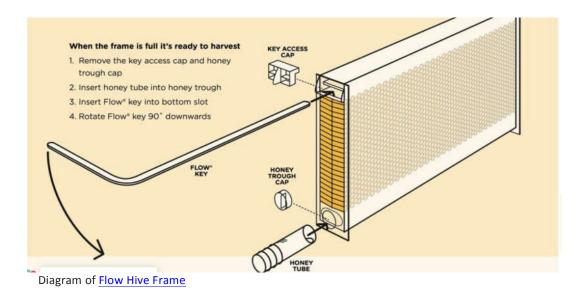
INC1600698

Email: kurdishlobbyaus@gmail.com

 $\textbf{Website}: \underline{www.kurdishlobbyaustralia.com}$ 

fill the cell with honey, then cap the cell with more wax. To harvest the honey a tube is simply inserted into the top opening and turned to split the two rows of cells to form a channel. Another tube is inserted in the bottom opening to extract the honey. The process is efficient and involves minimal disturbance of the bees. Each flow frame can produce over three kilograms of honey. For a video on the process see <a href="https://www.honeyflow.com.au/pages/about-us">https://www.honeyflow.com.au/pages/about-us</a>.

After patenting their idea the Andersons used crowd funding to finance operations and by April 2015, 20,000 kits had been ordered from around the world. By February 2018 they had fulfilled on-line orders from 130 countries.



### **KURDISH LOBBY AUSTRALIA'S CONTRIBUTION**

A founding member of Kurdish Lobby Australia (KLA), Zirian Fatah, purchased a Flow Hive for himself and was so impressed that he proposed a pilot project for KLA to donate a Flow Hive to the University of Sulaimani to test whether bees in Kurdistan would accept the Flow Hive and whether the Flow Hive could make a positive contribution to the KRI honey industry, for example, by reducing labour costs and bee deaths and therefor encouraging people to keep bees, resulting in increased food production and wild flora propagation. The Flow Hive was purchased for USD\$400 on-line at <a href="www.honeyflow.com.au">www.honeyflow.com.au</a>. The money was raised from donations, supplemented by savings in the KLA general account.

In December 2018, Zirian went to Sulaimani and delivered the Flow Hive to Assistant Professor, Dr. Ahmad H. Ameen H. Rashid, who is an expert in beekeeping, plant tissue culture and plant physiology in the Department of Field Crops, Faculty of Agricultural Sciences, at the University of Sulaimani. Dr. Ahmed holds bee-keeping classes and supervises post-graduate students conducting research into beekeeping. Zirian inducted Dr. Ahmad into the technology, explaining how to make the Flow Hive work best, for instance, by ensuring it is installed on a level surface with ant-capping for protection, and how to use the key to create a channel and allow the honey to flow easily. He also explained ways of overcoming obstacles such as when bees are slow to adapt to the new plastic cell technology. In such

**Postal Address:** PO Box 181 Strathfield NSW, 2135, Australia



# Registration Incorporation No:

INC1600698

Email: kurdishlobbyaus@gmail.com

Website: www.kurdishlobbyaustralia.com

cases, a beekeeper can mix some traditional Langstroth frames with the plastic frames, or brush melted wax along the plastic.

Dr. Rashid will colonise the Flow Hive in the spring of 2019, and introduce the Flow Hive to his students in view of interesting them in further apiary education and research, and/or for them to establish their own apiary. He will also introduce the Flow Hive to beekeepers in the Kurdistan Beekeepers Association, for which he is a founding member. He will report back to KLA on the honey produced, time saved in harvesting the bees, any problems, the beehive's impacts on surrounding flora, and the reactions of students and beekeepers to the operation of a Flow Hive.





Flow Hive donated to Dr. Ahmad Rashid at the University of Sulaimani. Right hand photo shows plastic frames.

Whilst in the KRI Zirian also met with a commercial beekeeper who owns many hundreds of hives which he places in different locations to exploit the diverse environments and weather patterns. In the best locations he produces 40 kilograms of honey per hive per annum. In the least productive locations he produces 10 kilograms of honey per hive, with the average being 25 kilograms of honey per hive per annum. All his bees feed from wild flora, unlike some apiarists who feed their bees sugar. He personally supervises the hives along with two full-time staff. He was most interested in the Flow Hive Project, and Zirian gave him a bee-keeping suit, which had been donated by Honey Flow.

Office Address: Suite 204, 1-17 Elsie St,

Burwood NSW, 2134, Australia

**Postal Address:** PO Box 181 Strathfield NSW, 2135, Australia



## **Registration Incorporation No:**

INC1600698

Email: kurdishlobbyaus@gmail.com

Website: www.kurdishlobbyaustralia.com

KURDISTAN REGIONAL GOVERNMENT-IRAQ Council Of Ministers Ministry of Higher Education & Scientific Research University of Sulaimani Presidency

Directorate of International Academic Relations & Media

park and parkets

حکومتنی همرتبی کوردستان -- عیراق سمرؤکایمتنی تعنجوومعنی ومزیران ومزارمتی خویندنی بالآ و تویترینعومی زانستی

سعرؤكايدتس زانكؤس سليمانس

به پیوه به رایدتان پهیومندییم ندکادیمیم نیتوده و آهنیاندن

ه: همونت / رابيد

No: 4994 Date: 18/12/2018

To: Kurdish Lobby Australia - KLA

## **Confirmation Letter**

Dear Sir/Madam,

This is to confirm that Assis. Prof. Dr. Ahmad Hama Ameen Hama Rashid, who is an expert bee keeper and former lecturer on bee keeping at College of Agricultural Sciences in our university and currently supervises postgraduates students, is willing to use the latest model of (Honey Flow Box) for practical lessons on bee keeping as students benefit from this technology from Australia.

at stry of Such

are of Francis

Facilitating his request is highly appreciated.

Best regards,

Assist Prof. Dr. Karzan Ghafur Khidhir

Director of International Academic Relations& Media

University of Sulaimani

Copy to: Record of Outbound Letters

> University New Campus | Raparin Way | Sulaimani | Kurdistan | Iraq www.univsul.edu.iq | Email: relations@univsul.edu.iq

19-Dec-18