Media release

Australia develops world-first indexing system for measuring antioxidants in honey to support the growth of local honey exports

28 March (Sydney): Australia has developed the world's first rating system to measure antioxidants active in honey. The Unified Antioxidant Factor - UAF® - aims to contribute to the growth of Australia's multi-million dollar honey industry by making it easier for consumers, particularly in export markets, to identify the antioxidant value of honey bee products. UAF® was launched today with ASX-listed retailer AuMake who will be the sole distributor of Medigum, a range of floral honey sourced from natural bushland in Western Australia that has significant levels of antioxidants and is one of the first products to use the UAF® system.

Antioxidants occur naturally in honey in varying degrees and current rating systems only measure the antimicrobial activity of honey. Antioxidants are compounds that help protect body cells against free radical damage that leads to oxidation and subsequent cell damage. Free radicals can potentially accelerate the ageing process and aid disease.

Ms Rosie Liu, producer of AuMake's Medigum products, said she initiated the development of UAF®, which is supported by the Australian Government's Collaborative Research Centre for Honey Bee Products (CRCHBP), to promote and add value to Australia's honey in overseas markets.

"*Consumers in our export markets are very discerning, particularly when it comes to their health and the health of their families. The UAF® will make it easier for consumers of Australian honey products to identify and make informed choices about the antioxidant value of the honey bee products they are purchasing,*" she said.

UAF® has been recognised by scientists from the CRCHBP, anti-ageing specialists, food scientists and independent laboratories. The newly formed Australia UAF Organisation Inc (UAF Org.), a not-for-profit health promoting entity, is the management and certifying authority for the UAF® index system.

UAF Org. Executive Councillor Mr Eduard Planken, OAM said: "*UAF Org. will work with antioxidant researchers to provide antioxidant level guidance and measurements for honey products that support good health, have potential to slow the ageing process and aid disease prevention.*"

Commenting on the UAF® launch CRCHBP CEO Dr Liz Barbour said: "*We applaud the introduction of UAF® as a way for Australian honey producers to differentiate themselves in a competitive international market. UAF® is a simple rating of the measurement of antioxidant activity in a honey. Antioxidant activity varies greatly between honeys so not all honey confers this benefit. At present all food antioxidant activity is measured using two tests which measure the antioxidant activity in different ways. The UAF® is a simplification of expressing the outcome of these two tests, making it much easier for consumers to choose the level which suits them.*"

AuMake's range of Medigum honey will be one of the first to market honey certified by the UAF® overseas to China.

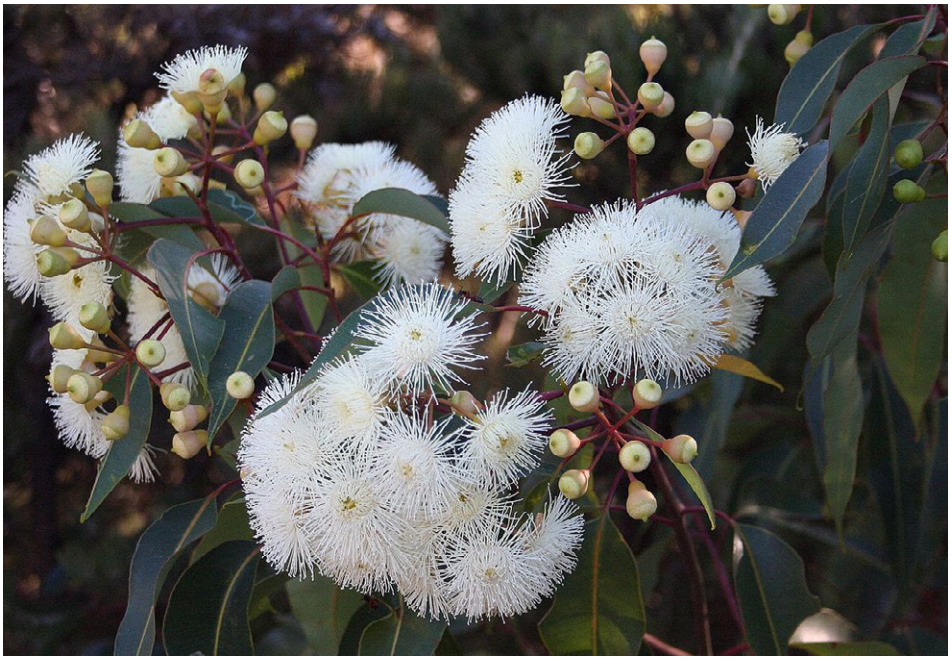
"*Medigum and UAF® fits perfectly with AuMake's strategy of providing our customers, daigou and Chinese tourists, with new and different Australian products that meet China's increasing desire for health benefiting ranges that are safe and natural. We recognise the opportunity that UAF® provides Australian honey producers to increase their international exposure and our partnership in developing the Medigum range supports this view,*" said Mr Keong Chan, AuMake's Executive Chairman, Keong Chan.

Medigum / UAF® fact sheet

What is Medigum Honey?

Medigum medicinal honey is high in antioxidants and sourced from Australia's healthiest bees producing floral honey from Eucalypts (Gum) in natural bushland in southern Western Australia, which is far away from farm and vet chemicals. Medigum's honey is cold extracted and packed ensuring the natural and bioactive properties in Medigum honey are maintained.

The Medigum range of honey is one of the first products to use Australia's new UAF® index which identifies the antioxidant levels in honey to make it easier for consumers to make purchasing decisions. Medigum's honey range has UAF® ratings between 350 and 750+.



What are antioxidants?

Antioxidants are compounds that help protect body cells against free radical damage that leads to oxidation and subsequent cell damage. Potentially free radicals can accelerate the ageing process and aid disease. They are generated by our body as a result of normal metabolic processes, or are derived from external sources such as alcohol, smoke, pesticides and air pollutants. If free radicals overwhelm our body, oxidative stress occurs, and this may trigger a number of diseases including heart and liver problems in addition to a number of cancers.

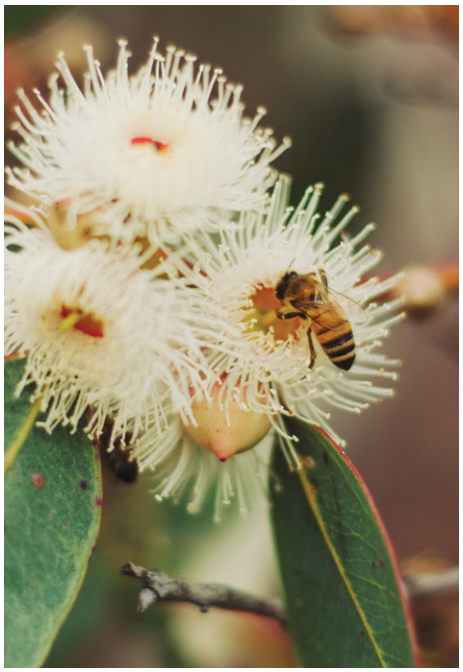
What is the Unified Antioxidants Factor (UAF®) index?

UAF® is a new system that allows the antioxidant levels in different honeys to be directly compared to make it easier for buyers of Australian honey bee products to make purchasing decisions.

UAF® represents the level of antioxidants in honey through the measurement of the capacity of the honey to absorb free radicals. An accredited independent food science laboratory performs two different assays, FRAP and ORAC, which measure the antioxidant activity in different ways. The results are presented in a simplified UAF® index system. The scale ranges from 0 – 1000 uMFe(II), with 1000 being the highest antioxidant activity. The majority of Australian honeys are rated at UAF® 50 to 800.

Antioxidant activity in honey is being further researched by the Australian government, via the Collaborative Research Centre for Honey Bee Products. This research will inform the Australia UAF Organisation Inc. (UAF Org.) which is the industry management and certifying authority for the UAF® index system. UAF Org. is supported by anti-ageing specialists, food scientists and laboratories; and the organisation cooperates with ongoing antioxidants researchers to provide antioxidant level guidance and measurements for honey products that support good health, have potential to slow the ageing process and aid disease prevention.

For more information visit www.uafinfo.org.au



About the Cooperative Research Centre for Honey Bee Products (CRCHBP)

Australia has one of the healthiest honey bee populations in the world and maintaining this is critically important to Australia's agriculture economy. Established in 2017, the CRC for Honey Bee Products Limited is supported under the Australian Government's Cooperative Research Centres Programme. Based in Western Australia, the five-year CRC aims to resolve the current industry challenges that limit the value and expansion of the industry.

The CRC's mandate is trans-disciplinary across four programs, driving innovation within the industry to meet export demands:

1. **Hive sites**
The hive site program will help protect existing sites, inform bee hive movement and rehabilitate land into new high-value hive sites.

2. **Bee health**
To contribute to honey bee health, the CRC will work towards future-proofing the bee industry and developing a catalogue of disease markers.

3. **Honey products**
The honey bee product program will add value to the industry through developing honeys from known floral sources for the export market.

4. **Chain of custody**
This program will use all the information from the CRC to develop a Chain of Custody. This will be linked to developing and testing product quality labels in the export market.

For more information visit www.crchoneybeeproducts.com

What are the antioxidant tests?

ORAC:
Oxygen radical absorbance capacity (ORAC) is a method used to estimate the antioxidant capacities of biological samples (eg honey). In a test tube, the sample is combined with certain molecules that generate free radical activity and molecules that are susceptible to oxidation. The antioxidant capacity is estimated by measuring how well the sample protected the susceptible molecules from oxidation (by stabilising the free radicals) over a certain amount of time.

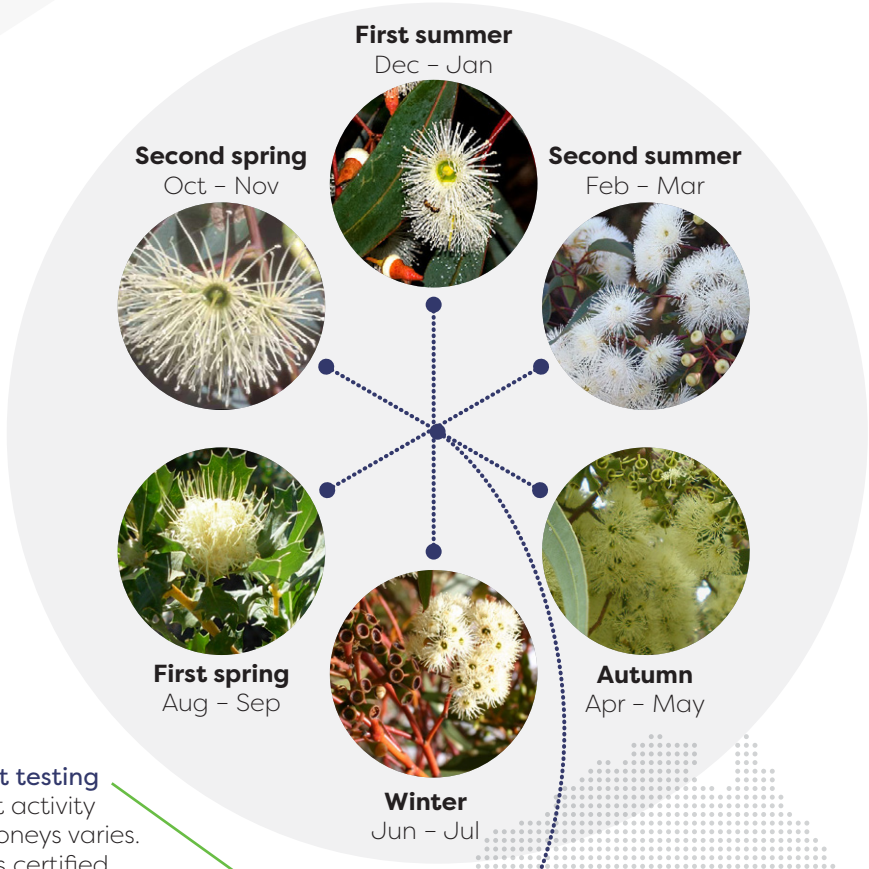
FRAP:
Ferric reducing ability of plasma (FRAP) is another method used to estimate antioxidant capacity of biological samples (e.g. honey). The method utilises the reduction of ferric (Fe^{3+}) to ferrous (Fe^{2+}) ions at low pH. When ferric ions are added to a sample, the reduction by the antioxidant causes a coloured molecule (with ferrous ions) to form. The antioxidant capacity can be measured by comparing luminance at a specific wavelength of the sample with a mixture with ferrous ions of a known concentration.

AuMake International Limited

Medigum honey chain of custody

To bring you a unique antioxidant honey product requires tracking its journey from native bushland to you.

Antioxidant rich foods are good for health, have the potential to slow the ageing process and aid disease prevention.



From flora to Medigum

Seasonal origin

Australia's healthiest bees produce floral honey from Eucalyptus (Gum) in natural bushland in Southern Western Australia, far away from farm and vet chemicals. The south of Western Australia has six seasons, each with its dominant honey bee-loving flora spread across the landscape. The bees mix the various flora in their hives making Medigum a natural combination of these floral sources.

Crossing country

Beekeepers are migratory, moving with season and flowers. Each year, beekeepers move their bees in the dead of night thousands of kilometres to make sure that at daybreak, their honey bees have the nectar and pollen feast to keep them healthy and producing quality honey.

Unique multi-floral honey begins with the bees in the hives

The honey is then cold extracted and packed ensuring the natural and bioactive properties in Medigum honey are maintained.

Antioxidant testing
Antioxidant activity between honeys varies. Medigum is certified using the UAF® index. An accredited independent science laboratory uses two antioxidant tests to identify the antioxidant value of the product. The higher the value, the higher the antioxidant activity and potential health benefits.

Assured distribution route
Our product moves through trusted partners to ensure that what was created by the honey bees in native bushland of Western Australia arrives to you in this bottle.

Seal
Ensuring freshness and tamper-proof security.

Honey chemistry
West Australian honeys are foraged from rare flora, unique to this part of the world, producing a distinct traceable profile.

Distinct label
Instant recognition of a quality product.

QR Code
Links to official Medium WeChat site for customers to keep up-to-date on product information.

UAF® index + certification
UAF® allows the antioxidant levels in different honeys to be directly compared to make it easier for buyers to make informed purchasing decisions.