Hello.

The purpose of the JBA website is to provide latest news and information about health research relevant to blackcurrants. Where the information comes from other parts of the world the JBA team translates that research for this website. But the blackcurrant is not only the subject of much research; it is also used around the world as an important food and beverage in many cultures. In these Columns I will share with you some information about this pleasurable 'perspective' of the blackcurrant as well as, from time to time, information about the latest research. **Bill Floyd, Advisor, Japan Blackcurrant Association**:

The Blackcurrant "Cascade"

Blackcurrant is not a name that is well-known in Japan and Japan's domestic production of commercially grown blackcurrants (in Aomori) continues to be very small. But Japan has a huge significance for the global blackcurrant industry: (a) from the knowledge created by its scientists and (b) because of the market potential its own sophisticated consumer population represents.

A recent example of innovative Japanese research looks at the potential of the blackcurrant **leaf** to create new product innovations to benefit consumers. This research was published:

<u>https://www.researchgate.net/publication/315500029 Phytochemical analysis of t</u> <u>he_leaf_of_the_blackcurrant_Aomori_Cassis_Ribes_nigrum_L_and_the_antioxidant</u> <u>effect_of_catechins</u>

Such a focus is a very good example of capturing value from the "cascade". "Cascade" is a term used to describe all or parts of a crop and its by-products created through commercial activity. For example, blackcurrants are traditionally harvested for their juice and the leaves and stems of the bush discarded after every annual harvest when pruned. But the blackcurrant is quite unique amongst berries in that, as growers have known, the blackcurrant juice aroma is also in the aroma of the crushed leaf. This has always suggested some aromatics that might have commercial potential and now this new Japanese research indicates such commercial values in the leaves.

Similar research was done late last century in New Zealand with the Manuka tree *(Leptospermum scoparium).* Pioneering research showed that Manuka honey has a unique antibacterial activity and the honey is now one of the most valuable honey types in the world. Scientists already had much anecdotal evidence of the use of various parts of the Manuka tree "cascade". For example:

• The tree was used in ancient Maori healing with the steam from boiled leaves inhaled for head colds, and a decoction from leaves and bark rubbed on stiff muscles and aching joints. Chewing the bark was also said to have a relaxing effect and enhance sleep.

- When Captain James Cook discovered New Zealand he used the leaves of the Manuka tree to make tea. This tea became so popular with English whalers it became known as 'whalers' tea".
- Beer was also made from the Manuka leaf tips and even today craft brewers use Manuka leaves to produce a unique New Zealand Manuka beer.

Scientific studies *in-vitro* have shown that Manuka essential oils distilled from the leaves can be active against gram positive and gram negative bacteria, gram negative viruses and some strains of fungi (*Nelson Cawthron Institute and Otago University Microbiology Department*). A very good summary of this Manuka Essential Oil research is at <u>http://www.manukanatural.com/manuka-essential-oil-monograph-manuka-natural/</u>

Research such as that done with Manuka leaf and now Blackcurrant leaf suggests that a wealth of beneficial natural compounds exist within a whole range of our existing commercial plant cascades that can be discovered and used for human benefit. Such developments make wise use of an existing resource and make good commercial sense.

It is important for me to stress the following when I refer to research:

- Research can be indicative of possible values to humans but most current research requires significant more trials before values are proven.
- While research is being carried out people should simply enjoy blackcurrants as part of a balanced diet of many foods; especially fruits and vegetables.
- No-one should use the above information in any way to treat themselves without discussing first with their medical professional.



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