

**Pioneering
Blackcurrants
in Japan:
the Four Leaf
Case Study**

More research already exists for blackcurrants than virtually any other fruit but the blackcurrant still hasn't achieved its true potential!

It is essential to eat five portions of fruit and vegetables each day as part of a balanced diet.

Some fruit contain more health promoting properties than others.

Latest research has discovered that one fruit outshines the rest when it comes to health boosting benefits.

BLACKCURRANTS ARE THE No. 1 Superfruit!

"The combined beneficial composition and impact in health related studies mean that blackcurrants can claim to be the No.1 Superfruit"

COINED BY DR. P. FLESTADT, Senior Lecturer, Brunel University

BLACKCURRANT	Superfruit Health Components	% recommended daily allowance/100g
8.8	ENERGY	8.8
32.2	FIBRE	32.2
100	VITAMIN C	100
5.4	VITAMIN B2	5.4
63.9	VITAMIN E	63.9
139	VITAMIN K	139
10.3	CALCIUM	10.3
133	IRON	133
11.7	PHOSPHORUS	11.7
9.7	POTASSIUM	9.7
7.1	SELENIUM	7.1
4.4	ZINC	4.4

THIS SUPERFRUIT WHEEL contains selected nutrient compositions of some of our commonly consumed fruit.

Turn the wheel to see the beneficial effect and nutritional values of the selected fruit, plus the RDA/100g element of each fruit.

NUTRITION LEVELS

- HIGH LEVEL
- MODERATE LEVEL
- LITTLE OR NONE PRESENT

Apple
Apricot
Banana
Blackberry
Blackcurrant
Blueberry
Cherry
Cranberry
Grapefruit
Grape
Lemon
Mango
Melon
Orange
Passion Fruit
Peach
Pear
Pomegranate
Raspberry
Strawberry

FOR MORE INFORMATION PLEASE VISIT
www.superfruits.org
www.scribd.com
www.blackcurrantfoundation.co.uk

The Superfruit Wheel

Many fruits have certain properties that may be healing or good for certain ailments or conditions.

A superfruit is exceptional in that it has extremely high health promoting compounds which help to fight certain diseases and ailments.

However, we believe that to be called a superfruit, rigorous scientific evidence must be available on the health benefits to be gained from including the fruit in ones diet.

This wheel compares the health benefits and components of some of our commonly consumed fruit. The information has been distilled from a wealth of scientific, peer reviewed research articles and approved compositional food databases in such a way that their relative merits can be comparatively assessed.

It should be noted that these comparisons are only valid between the fruits represented here. As more fruit are added, the relative health benefits of the fruit may change. Similarly as new biomedical research emerges the relative health benefits of the fruit may change.

ANTIOXIDANTS and impact on key health areas

- ANTIOXIDANTS
- HEART DISEASE
- CANCER
- ALZHEIMER'S & NEURODEGENERATION
- MRSA & ANTI-BIOTIC
- VISUAL FUNCTION / EYE STRAIN
- BRAIN FUNCTION & AGING
- DIABETES

THIS SUPERFRUIT WHEEL contains selected health benefits of some of our commonly consumed fruit.

Turn the wheel to see the health benefits of the selected fruit.

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Peer review research exists to show the potential for human mental and physical health

- Gastrointestinal health
 - Heart health
 - Mental health
 - Dementia/alzheimers
 - Sport recovery
 - Sport performance.
- Yet at the very time when sound ethical quality research is being completed the regulators are putting up the shutters and stopping the blackcurrants values being better known.

Peers and Pioneers

- In a world of facts and fanciful claims what do people believe?
 - People look to respected scientific studies and their peers and companies and brands they can trust.
 - Word-of-mouth is critically important.
 - Credibility is critical.
 - And some countries lead and others follow.
- JAPAN
 - A world leader in setting trends and establishing beachhead health related concepts.
 - A highly educated and intelligent population
 - A population that respects innovation combined with integrity.

JAPAN

one of the most strategically important countries in the world for the sound and sustainable development of the blackcurrant as “the best berry for life” and as the launch base for ethical and credible health-relevant foods, beverages, and supplements .



**FOUR
LEAF**

Pioneering blackcurrant's values in Japan for the last 9 years is Four Leaf Japan Company.

Four Leaf Japan Company.

- Visionary sponsor of human health research for blackcurrants.
- Visionary sponsor of a unique business model that creates a positive, sustainable relationship between grower and processor, between business and society.
- Visionary sponsor of the International Blackcurrant Association itself.

Visionary sponsor of human health research

- In 2003 Four Leaf Japan assessed ways to potentiate polyphenolic values in blackcurrants.
- The result was CAM30: a very high anthocyanin content blackcurrant extract produced from New Zealand-grown blackcurrants.
- CAM30 was put into a proprietary formulation with Lactoferrin, Lutein and other key ingredients. This was called First Leaf.
- Four Leaf invited scientists at New Zealand's Massey University to submit research concepts that would be relevant to CAM30's unique properties and to the First Leaf formulation.

THE CONSUMER 'PLATFORM': Human Gastro-intestinal Health

- The Japanese and many other sophisticated societies place immense importance on gut-health.
- They see it as the gateway to an overall positive health: a vital part of the holistic issue of metabolic syndrome and other modern-day health issues.
- This was the positioning platform chosen by Four Leaf Japan for a major research initiative.

The Product

- The research would use Four Leaf Japan CAM30 blackcurrant extract and also First Leaf, the unique proprietary formulation that included CAM30 blackcurrant anthocyanin extract, Lactoferrin and Lutein extracts.
- Indicative research suggested this formulation had synergistic potential for gut health relevance.



The research leader

- **Dr. Abdul L. Molan**
 - BSc, MSc, PhD
 - Professor in Parasitology/Senior Research Scientist
 - Institute of Food, Nutrition and Human Health,
 - Massey University, New Zealand,



Stage One: Animal Trials

- A successful animal laboratory trial was completed and the results published in the World Journal of Microbiology Biotechnology:
 - *The Ability of blackcurrant extract to positively modulate key markers of gastrointestinal function in rats.*
- Both First Leaf as a formulation and CAM30 as a blackcurrant specific additive, produced significant increases in bifidobacteria and/or lactobacilli and significant decreases bacteroides and clostridia.
- Both had potential as prebiotic agents.

The results were presented by Dr Molan to the Inaugural International Blackcurrant Association Conference in New Zealand in 2008.

Stage Two: Human Trials

- 45 volunteers from Massey University took part in a 4-week trial taking blackcurrant extracts First Leaf, and CAM30.
- The trial produced 3 significant outcomes in the human gut; confirming the published rat research.
- An increase in bifidobacteria and lactobacilli.
- A reduction in population sizes of pathogenic bacteria.
- And importantly: a decreased activity of beta-glucuronidase and a lowering of faecal pH.

The results were presented By Dr Molan to the International Blackcurrant Association Conference in Netherlands in 2011.

An important and unexpected development
of the research:

Beta-glucuronidase

- Beta-glucuronidase is a bacterial enzyme thought to be implicated in colorectal cancer.
- Beta-glucuronidase is also believed to prevent the body from detoxifying more potent forms of estrogen and as such is implicated in breast cancer.

Where to next?

- Dr Molan's Human Trial is presently under review for publishing.
- Once published Four Leaf will work with Massey University to identify the next research phase.
- The research to date, through both animal and human trials, have shown positive indications for human gut-health from CAM30 and First Leaf extracts.
- Important:
 - Four Leaf Japan is sponsoring this research as part of its social-good commitment to both society and to the blackcurrant industry.
 - Four Leaf Japan does not advocate the promotion or use of the extracts for the health issues under study.
 - Significant research is still required and many issues are still to be resolved.

Visionary sponsor of a unique business model that creates a positive, sustainable relationship between grower and processor, between business and society.

- Four Leaf was created by the company's founder and CEO, as a result of the devastating Great Hanshin Earthquake in Kobe, Japan, 1995.
- The chaos and destruction and suffering showed him how survival depended on people helping people: getting back to basics and caring for each other, one-to-one.
- As a result, and as his own family and community rebuilt their own lives, he decided to build a business based on a positive family model.
- Four Leaf Japan was the result and the philosophy it was based on called Just Cause Business.

Just Cause Business Philosophy

- Putting social good before profit so that final profits are sustainable and more rewarding for all.
- Discovering and maximising the strengths that positive relationships create for a business.



In Mexico Just Cause Business philosophy means helping the community where Four Leaf sources its marigolds for Lutein Supplement: helping church and families.

Just Cause Business Philosophy

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In New Zealand Just Cause Business philosophy means helping the community where Four Leaf sources its blackcurrants. 'Greening the Waipara' is a world renown initiative that is making a positive transformation of the geography of the area.

Four Leaf Japan in Japan

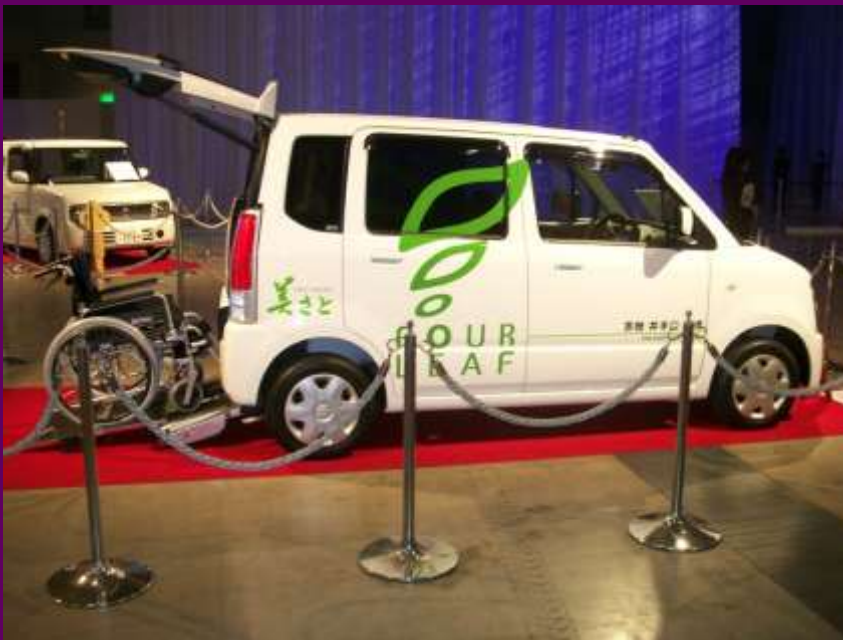
- Four Leaf Japan is a multi-level marketing company (MLM)
- It uses the binary-model to develop its customer and consumer base.
- This model is highly personal: it needs genuine and sincere promotional activity.
- In 2013 Four Leaf Japan celebrates its 10th Anniversary.
- This is a significant milestone for an MLM company in Japan and reflects the sound strategy and sustainability of the Just Cause Business model.



Unique promotional activity

From sponsoring a Formula Race Car to Community wheelchair vans:

Four Leaf Japan is a part of both the national and local community its membership represents.





- Four Leaf's Judoka one of Japan's top teams.
- Four Leaf's members are a unique family-team.
- Four Leaf's health supplements are part of the fabric of their personal and business lives.
- And Blackcurrants are at the very core of the formulation.

Visionary sponsor of the International Blackcurrant Association itself.

- In 2008 Jim Grierson told Four Leaf Japan of a vision a group had for a united global blackcurrant industry.
- A vision for a unique organisation that could bring the growers of the world together into a community that worked together, that gave focus to its own energy, that created its own success.
- Four Leaf saw and respected the vision and the passion and agreed to become the founding sponsor of the Association.
- They see it as a perfect fit with their Just Cause Business philosophy.



- Funding good science.
- Investing in ethical product development and market promotion.
- Visionary sponsorship of a unique global industry model.

Four Leaf Japan is a case study of how this industry's potential will be achieved in Japan, and also how the industry could achieve its potential globally with other like-minded brand champions.