



GO GRAINS HEALTH & NUTRITION LTD

The leading independent nutrition advisor for grain foods
in human health

Presentation to
2nd INTERNATIONAL PULSE HEALTH CONFERENCE
TORONTO, CANADA, FEBRUARY 2009



“Chewing the Fat”
or
“There’s never been
a better time for
beans”



BRONZED AUSSIES



Bronzed Aussies???



- 67% of men and 52% of women are overweight or obese
 - around 7 million Australian adults
- 17% of children (2-16 years old) are overweight; 6% obese.

Diabetes



- 242,033 Australians have type 2 diabetes as a result of being obese

Obesity causes:

- almost one-quarter of:
 - type 2 diabetes (23.8%)
 - osteoarthritis (24.5%)
- around one-fifth of:
 - cardiovascular disease (21.3%)
 - colorectal, breast, uterine and kidney cancer (20.5%).

pulses are a "superfood"



beans, peas, lentils & chickpeas are a healthy food choice

"Pulses" or "legumes", include crops like dry peas, dry beans, lentils and chickpeas. They are an excellent food choice with health-promoting benefits. Their key nutrients include complex carbohydrates (e.g. fiber, resistant or slowly digested starch), vegetable protein, folate and other vitamins, and minerals like potassium and iron. All support a healthy diet.

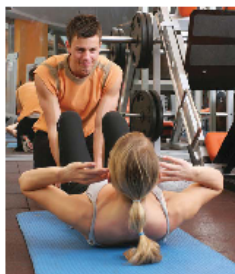
- High Fiber -15 g dietary fiber per cup!
- High Resistant and Slowly Digested Starch
- Vegetable Protein -23% protein
- Low Fat -1%
- Low Glycemic Index (GI)
- High Vitamins and Minerals

pulses can help protect your good health

Clinical research over 40 years has shown that regular intake of beans or other pulses can contribute to a marked reduction in serum cholesterol and other blood lipids — major risk factors for cardiovascular disease. More recently, research studies have shown that regular pulse consumption may assist with weight management by increasing feelings of fullness and controlling appetite.



pulses are recommended by health professionals!



Many health organizations recommend eating pulses to maintain good health and prevent chronic diseases like diabetes, heart disease and cancer. The U.S. Dietary Guidelines (2005) recommend eating 3 cups of dry beans (pulses) per week. In 2005, the U.S. Food and Drug Administration issued this statement: "Diets including beans may reduce your risk of heart disease and certain cancers". Canada's 2007 Food Guide to Healthy Living states "Have meat alternatives such as beans, lentils and tofu often" and suggests that regularly choosing beans and other meat alternatives such as lentils can help minimize the amount of saturated fat in the diet.

Pulse Canada



for your health

Peas, Beans, Lentils and Cardiovascular Disease

The 2005 Dietary Guidelines for Americans, developed by the USDA, recommend eating three cups of legumes per week, including beans, peas, lentils and chickpeas.

Research has shown that diets including beans and other pulses to your diet may reduce risk of heart disease and certain cancers.

Pulses are a great fit for a healthy eating pattern.

- Cardiovascular disease (CVD) is the leading cause of death in industrialized countries and accounts for nearly 30 per cent of all deaths worldwide each year.
- Regular consumption of pulses (beans, peas, lentils, chickpeas) can contribute to reduced serum cholesterol and triglycerides** — two major risk factors for CVD. This has been consistently demonstrated in clinical research over the last four decades.
- Eating pulses regularly may also reduce the risk of heart disease via favorable effects on blood pressure, blood glucose and insulin moderation, and the beneficial effect of fiber.
- Pulses contain protein, complex carbohydrates (soluble dietary fiber, resistant starch, oligosaccharides), and folate, as well as other phytochemicals that support a heart healthy diet.**
- Pulses are low in fat and low in sodium, are virtually free of saturated fatty acids and contain no cholesterol.**
- Pulses are rich in dietary fiber, including soluble fiber which can slow the absorption of lipids and lower blood cholesterol. Soluble dietary fiber can

also increase fecal bile acid excretion, resulting in reduced intestinal absorption of fat and cholesterol.*

- Pulses are an excellent source of the B vitamin folate. A one cup serving of pulses provides, on average, more than half the current recommended daily allowance (RDA). Adequate folate intake has been found to reduce elevated blood homocysteine, a risk factor for CVD.*

REFERENCES:

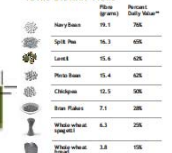
1. Sacks and his colleagues for 2002 by name for WHO Member State, World Health Organization, 2004. www.who.int/dietphysicalactivity/en/index.html
2. Anderson, J.W., Heer, A.W. 2002. *BMJ* 324 (6059): 1311-1312.
3. Goff, D.C., Anderson, J.W. 1998. *JAMA* 280 (16): 1943-1948.
4. U.S. Department of Agriculture, Agricultural Research Service, 2005. *2005 National Health and Medical Research Institute, Nutrition Data Laboratory Home Page*, <http://www.nutritiondata.gov/>
5. Miettinen, J.A. 1992. *Am J Hypertens* 4:7: 108-121.
6. National Academies Press, *Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantoic Acid, Biotin, and Choline* (1998).
7. Savelbergh, G.J., et al. 1998. *JAMA* 279: 1668-1672.

DIETARY DIGESTION FIBRE*

• Health
• Diet
• Energy



TOTAL DIETARY FIBRE*



*Based on 100g of pulses, except for Dry Peas (2 cups of dry peas which equals 100g). **Recommended daily intake = 25g per day.

Peas, Beans, Lentils & Weight Management

The 2005 Dietary Guidelines for Americans, developed by the USDA, recommend eating three cups of legumes per week, including beans, peas, lentils and chickpeas.

Research has shown that diets including beans and other pulses to your diet may reduce risk of heart disease and certain cancers.

Pulses are a great fit for a healthy eating pattern as recommended by the USDA's food pyramid (MyPyramid) and Canada's Food Guide to Healthy Living.

- Pulses (beans, peas, lentils and chickpeas) are high in fiber, complex carbohydrates and protein, and low in fat and have a low glycemic index. These nutritional characteristics make pulses an important part of a weight loss or weight maintenance diet.
- A overweight individuals are at a greater risk of health problems — most notably the metabolic syndrome which is characterized by abdominal obesity, high blood triglycerides, low blood HDL cholesterol, elevated blood pressure, insulin resistance or glucose intolerance, and hyperuricemia. Individuals who are obese or have the metabolic syndrome are at risk for developing chronic diseases such as cardiovascular disease and type 2 diabetes.*
- Emerging research suggests that when compared to regular, sedentary body weight loss and weight management, diets rich in pulses (high in soluble and resistant starch) indicate a reduction in glycemic response and insulin surge, which in turn may assist in weight management. Research has shown an inverse relationship between body mass index (BMI) and fiber consumption, and obesity and pulse based dietary patterns,** although preliminary evidence suggests that consuming pulses helps with weight management, and subsequent metabolic syndrome and obesity are necessary to confirm this.

1. American Heart Association, *Metabolic Syndrome*
2. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
3. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
4. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
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7. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
8. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
9. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.
10. Sacks, G., et al. 2001. *Diabetes* 50: 104-110.

The nutritional composition of pulses is significant for weight management in adults. There is a low energy or calorie density, are low in fat and are high in protein, fiber and resistant starch. Pulses, as a source of fiber and resistant starch, may assist with weight loss and weight management by increasing feelings of fullness and controlling appetite.

It is an excellent source of soluble dietary fiber and (slowly digested starch) and (slowly digested starch) and (slowly digested starch). These nutrients may assist with weight management by increasing feelings of fullness and controlling appetite.

For more information, please visit www.pulsecanada.com.

WEIGHT SMART WAYS WITH PULSES

- Make low fat, high fiber, high protein soups, dips, casseroles, salads, and dips.
- Add pulses to your diet as a snack or as a side dish.
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Health benefits of pulses

Pulse Canada Fact Sheets

“Pulses are an excellent source of the B vitamin folate. A one cup serving of pulses provides, on average, more than half the current recommended daily allowance.”

**“pulses for
controlling
blood sugar”**

Pulse Canada



- “Pulses are extremely low in fat and low in sodium, are virtually free of saturated fatty acids and contain no cholesterol.
- Pulses are rich in dietary fibre, including soluble fibre which can slow the absorption of lipids and lower blood cholesterol.”



Health Canada www.hc-sc.gc.ca

“Eating Well with Canada's Food Guide(2007): Development of the Food Intake Pattern.”

April 2007 issue of Nutrition Reviews,
Vol.65, No. 4

Consumer Education



everyday food
BY BARBARA NORTHWOOD

GO Grains!

& Pulses

GO WITH THE
GRAINS

10 for
1 Food
pulses
are 'power
they offer
• lots of
carbo

Go Grains

Go Grains E-News

variety of breads to breakfast cereals, couscous, chickpeas, baked beans and Trish Griffiths, an Accredited Practising Dietitian, most of these wonder foods.

Daily vitality
Many of the protective

Feel good
Eating a diet rich in grains and

A Go Grains promotion

GO GRAINS FOR BREAKFAST

With Accredited Practising Dietitian Trish Griffiths

Why is breakfast important for children?

Before the kids venture off to school in the morning, it's important they kick-start their learning day with an energy-rich breakfast. The brain food gives them readily available essential nutrients, vitamins and minerals they need each day and a quarter daily fibre requirement.

Does a breakfast really improve performance?

Food habits developed in childhood carry into later life. So it's important that children eat nutritious grain-based foods for energy and wellbeing.

Research shows that a whole-grain breakfast can improve short-term memory, assist with problem solving, and improve performance in creativity tests. It also improves alertness and attention.

What's a good healthy breakfast?

Breakfast comes in a variety of forms. It doesn't have to be boring. Go with what you love. English muffins or croissants (wholegrain, wholemeal or high-fibre are best). Then there's porridge or oatmeal, creamed corn or baked beans – an excellent way to start the day.



For more information and recipes visit www.gograins.grdc.com.au

A Go Grains promotion

GO GRAINS FOR A HEALTHY DIET

With Accredited Practising Dietitian Trish Griffiths

Are 'low-carb' diets useful?

Using smaller portions may sound appealing, but low-carb diets won't help you combat those extra kilos. There's no scientific or nutritional evidence that carbs are more fattening than other foods. While low-carb diets may cause quick initial water and muscle loss, they haven't been shown to help weight loss in the long term.

A balanced diet including carbohydrates is the best way to lose weight – and keep it off.

Carbs essential for good health

It's best to fill up on nutritious high-carb foods like bread, cereal, rice, pasta, legumes, fruit and vegetables. These foods are packed with essential proteins, vitamins and minerals crucial for vitality and wellbeing. Other carb foods like fatty and soft drinks are best kept to a minimum.

Tips on carbs and diet

High-fibre carb foods help control weight loss by creating a 'full' stomach feeling, helping you eat less. Carbs also provide essential protein and they aren't fattening – with the same kilojoules as protein and only half the kilojoules of fat.



For more information visit www.gograins.grdc.com.au or email gograins@brl.com.au

A Go Grains promotion

GO GRAINS

With Accredited Practising Dietitian Trish Griffiths

What exactly is a wholegrain food?

Wholegrain foods contain all the goodness of the grain. With nutrients essential for your vitality and wellbeing, they provide an extra health boost to your diet. As an added bonus they can be found in your local supermarket.

Wholemeal and wholegrain varieties of bread, pasta, rice, breakfast cereals, crispbreads and rolled oats are just a few of these protein, vitamin and mineral packed foods.

How will eating more wholegrains improve my family's diet?

With hectic lifestyles, wholegrain foods are an easy, great-tasting, low-fat, high-fibre food choice that will satisfy your hunger longer. Wholegrains contain B vitamins, minerals and antioxidants to give you a healthy glow.

How much should I be eating?

Health professionals recommend at least four servings each day of breads and cereals for women and six servings for men. Aim for at least half to be wholegrain. A serving is just two slices of bread, 1/2 cup of cooked rice or 1 1/2 cups of flaked breakfast cereal.



For more information and recipes visit www.gograins.grdc.com.au



ly –
le all this and more!
and nutrients make healthy,
and they taste good too!
nd products made from these foods

Carbohydrates A HEALTHY DIET

vitality and energy come from eating a varied, nutritious diet including regular exercise. The secret to looking good, feeling great and enjoying life is to eat well – and that includes carbohydrates.

- ✓ **HEALTH AND VITALITY** – High-carbohydrate foods such as bread, breakfast cereals, pulses (legumes), fruits, vegetables and dairy products provide many essential nutrients.
- ✓ **FIBRE** – Foods like breads and breakfast cereals

GoGrains Everyday



A Teaching Resource
for Upper Primary

Media Campaigns

Newspoll: Low Carb Confusion



Courier Mail
Diet confusion health hazard, warns doctor
Leanne Edminstone

Diet confusion health hazard warns doctor

7News.com.au

Low-carb fad could be a danger: experts

Date: 15/09/04
By Sandra O'Malley

People may be endangering their health and mistakenly avoiding cheese from their meals because of a faddish interest in low-carb

Low-carb diets, including the well-known Atkins Diet, have become past few years amid rising levels of obesity in western nations.

A study of Australian adults showed one in five - with women outnumbering men two to one - have tried a low-carb diet or plan to give it a go.

Low-carb

Sun
in fad diets
O'Malley

Danger in fad diets

PEOPLE may be endangering their health, says Sandra O'Malley

Australian
Doctor.com.au

Confusion over carbs (Daily Telegraph)

17-Sep-2004

A Newspoll survey has found many people are confused about carbohydrates — some even confusing eggs and cheese with carbs. Deciding to avoid them, the *Daily Telegraph* reports, is a warning from nutrition experts that these diets are dangerous and steering them away from essential foods.



The Australian
Low-carb diets high on risk
Scott Emerson and AAP

15 September 2004
Image 1 of 1
Image Size 118.76

Low-carb diets high on risk

Scott Emerson
AAP

MANY people trying faddish low-carbohydrate diets are confused about what foods contain carbohydrates, and are placing their health at risk by excluding vital items such as eggs and cheese from their meals.

lollies and soft drinks contained carbohydrates, and a surprising one in five mistakenly believed cheese and eggs were carbohydrate sources.

The Newspoll, which surveyed 1200 adults in August, was commissioned by Go Grains, an initiative of the Australian grains industry to inform the community about

the most protective, helping fight against cancer, heart disease and diabetes.

"But now we're doing this huge population experiment. 20 per cent of people are on these diets at any one time, without any idea of how dangerous they may be for us."

The milder side-effects of low-carb diets include lethargy



Wholegrains Prevent Diabetes

Wholegrains and legumes fight diabetes

ap

The Canberra Times
Legumes, grains diabetes t
no author

Legumes, grains diabetes beaters

Legumes and wholegrains were hailed yesterday as the dietary

Diabetic diet

LEGUMES and wholegrains are hailed as the dietary heroes of diabetes after a world-wide study confirmed a diet rich in those foods could improve the condition so much that some patients could even throw away their medication.

In a review of every trial performed

aap

Illawarra Mercury
Super foods fight diabetes
no author

5 November 2004, Page 16
Image 1 of 1
Image Size 121.82

Super foods fight diabetes

Diet of lentils, grains best medicine

blood su LEGUMES and wholegrains were yesterday hailed as the dietary heroes of diabetes after a world-wide study confirmed a diet rich in those foods could improve the condition so much that some patients could even throw away their medication.

Diet breakthrough for diabetics

By KYLIE WALKER

A WORLD-WIDE study has confirmed a diet rich in legumes and wholegrains could improve

against diabetes but they also can be useful in lowering blood sugar levels and reducing the risk of heart disease.

Eating a diet rich in whole-

else and weight-loss, people with diabetes could also find they were able to cut down dramatically on medication.

"If people are on a totally

Legumes hailed as heroes of diabetes

Legumes and wholegrains have been called the dietary heroes of diabetes after a worldwide study confirmed a diet rich in those foods could improve the condition so much that some patients could even throw away their medication.

In a review of every trial performed on diabetes and diet during the past 30 years, New Zealand specialists found overwhelming evidence in favour of



Consumers want to
be:

- ✓ healthy
- ✓ happy
- ✓ forever young
- ✓ never sick
- ✓ never die





Women also want to be thin.



YES



NO



PULSES HAVE AN IMAGE PROBLEM!

BORING

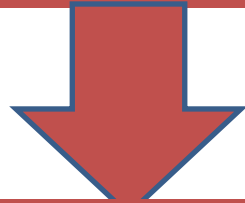
**DIFFICULT/
TIME-CONSUMING TO
PREPARE**

**WHAT DO YOU DO
WITH THEM?**

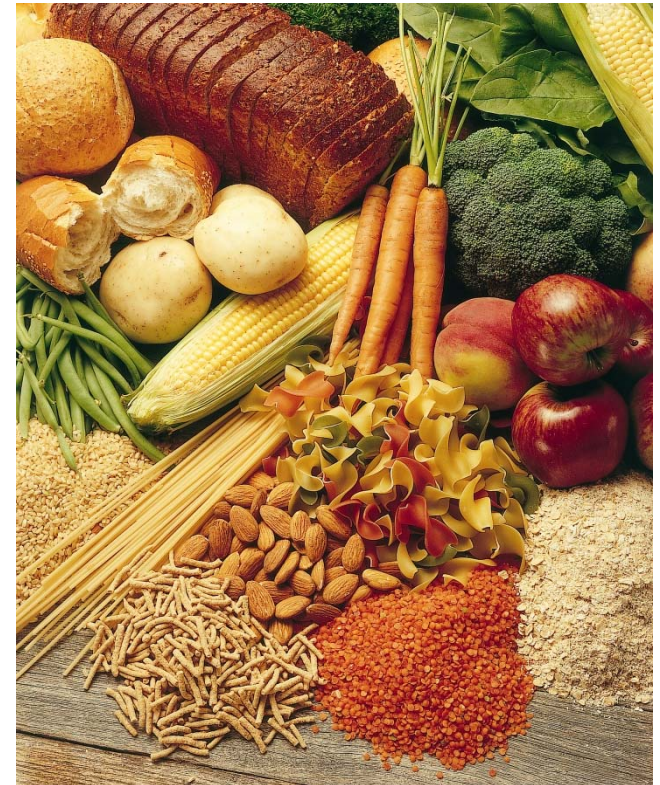


The challenge for pulses

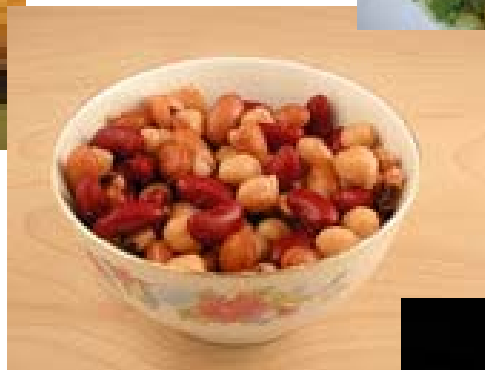
Consumers do not have a clear idea of the health benefits of pulse foods



Pulse foods face serious challenges

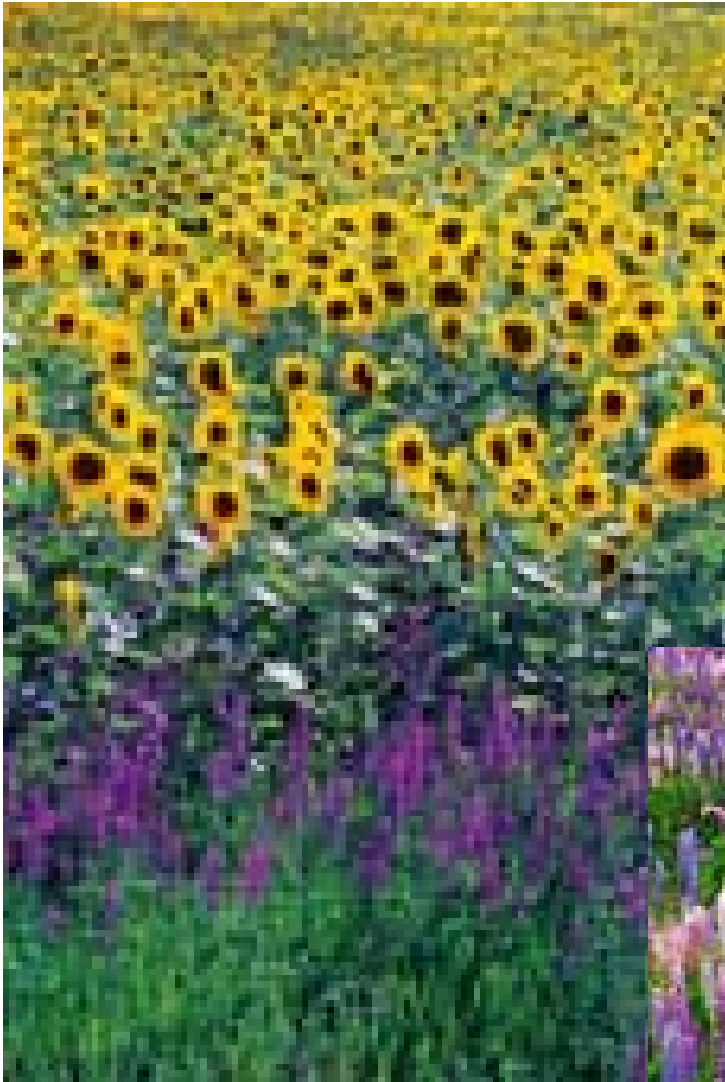






Anti-smoking campaign:Australia Smoking causes mouth cancer







MARKETING



Neuro marketing

Martin Lindstrom “Buyology”



What is success?

1. Sell more pulses?

2. Increase profitability of pulse industry?

3. Healthy consumers?

Benefits for Growers

Market linkage
food manufa
ensure grain
the requirem
food process
manufacture
opportunity t
increase the
grains in key
products

Market sig
to drive R&
leading to
commercial
opportunit

Promotio
grain
products
high valu
source of
nutrients
(domestic
internatic
markets)

Recogn
that g
are
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to
comm
health

**Positive,
industry-wide
commitment
with shared
responsibility
in increasing
grain
consumption**



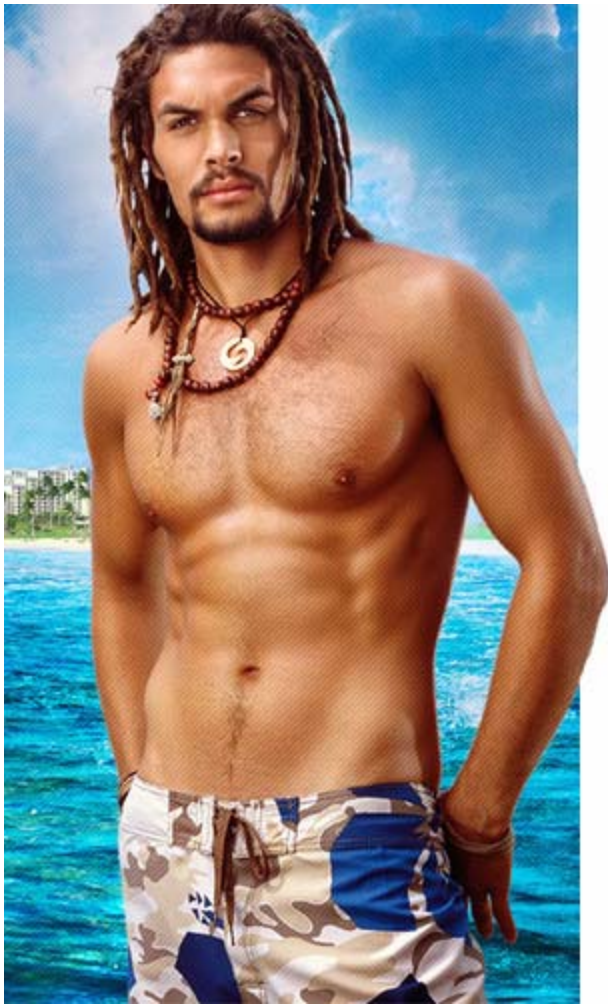
Success requires a:
Combined, coordinated,
comprehensive, targetted,
determined effort



EVERYONE'S
A
WINNER



ELIZABETH HURLEY
beach





- ✓ Need for continued reinforcement of health and nutrition messages to health professionals and consumers
- ✓ Pulses require more a more contemporary profile to find a place in the modern western diet
- ✓ International collaboration on pulse research and marketing is essential

An Australian Ute (pronounced “yute”)





Thank you

DON'T BE A HAS BEEN – EAT MORE BEANS