Dear Colleague,

These News Bites and Tweets are free for you to use as you feel appropriate.

We would appreciate if you acknowledge and reference Grains & Legumes Nutrition Council™, @GrainsLegumesNC, GLNC or #glnc. Thanks in advance.

‘Ready-to-use Bites’ may be copied directly, please feel free to pass these on to subeditors who may find them useful. The ‘Background Bites’ contain more detail.

Ready-to-use Bites

Whole grains help prevent pre-diabetes
Nearly one in four Australian adults has either diabetes or pre-diabetes. A recent study of 5000 middle aged adults has found that eating more whole grains lowers the risk of developing pre-diabetes and diabetes. Whole grains contain many beneficial nutrients including protein, energy-giving carbohydrates, vitamins, minerals and antioxidants which are thought to work together to bring about health benefits. The exact way in which whole grains protect against pre-diabetes and diabetes is not known, however researchers suggest it is closely related to the structure of whole grains and fibre content which slows digestion helping to control blood glucose levels after a meal.

Tina Wirström, et al
Consumption of whole grain reduces risk of deteriorating glucose tolerance, including progression to prediabetes
American Journal of Clinical Nutrition, Published online 12 December 2012
http://ajcn.nutrition.org/cgi/content/abstract/97/1/179

Whole grains important for kids’ weight
Children who eat more whole grains are less likely to be obese. Researchers from the US compared the diets of 792 children and found that those who ate more than 1.5 servings of whole grains daily had a 40 % lower risk of being obese compared with children who ate less than 1 serving. Aussie kids (9 years+) are encouraged to eat 3 serves of whole grains daily; however a survey in 2011 found that they eat less than two serves each day. The good news is including whole grains is easy and kids may already be achieving this target. Check out this Whole Grains Fact Sheet to see what three serves of whole grains looks like in a day.
Or for use in print media:
Three serves of whole grain is as easy as a bowl of whole grain cereal and a wholemeal sandwich.

Silvina F Choumenkovitch et al,
Whole grain consumption is inversely associated with BMI Z-score in rural school-aged children
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8805932

Lifting the lid on legumes
Legumes are packed with essential nutrients including protein, fibre, energy-giving carbohydrate, vitamins and minerals. In addition to nutrients, legumes also contain a variety of ‘bioactive components’ which for many years have not been considered to offer any health benefits. However, recent research now indicates that these ‘bioactive components’ help to promote health, often
acting as natural antioxidants. With these scientific developments it’s no wonder that eating legumes is linked with lower risk of diabetes, cardiovascular disease, obesity and some cancers. Australians are encouraged to eat at least 2-3 serves of legumes each week, where 1 serve equals 75g or ½ cup cooked beans, peas or lentils.

Jagdish Singh, Partha Sarathi Basu
Non-Nutritive Bioactive Compounds in Pulses and Their Impact on Human Health: An Overview
Food and Nutrition Sciences, Vol.3 No.12, December 2012
http://www.scirp.org/journal/PaperInformation.aspx?paperID=25289#abstract

Healthy baking with Beans
Australia produces 2.5 million tonnes of legumes each year and we are encouraged to eat at least 2-3 serves of legumes each week. Despite being inexpensive, widely available, highly nutritious and linked to better health Australians only eat around a quarter of one serve per week, where one serve is equal to ½ a cup cooked beans, peas or lentils. A recent study has shown that legumes maintain the health benefits of being low GI and keeping you fuller for longer even when used as flour. This means that legume flours can be added to foods by Aussies at home or by food companies to create healthier products.

Liu, Yudan
Acute Effects of Navy Bean Powder, Lentil Powder and Chickpea Powder on Postprandial Glycaemic Response and Subjective Appetite in Healthy Young Men
University of Toronto, MSc Thesis 2012
https://tspace.library.utoronto.ca/handle/1807/33293

Background Bites

Whole grains help prevent pre-diabetes
This recent study investigated whether whole grains protect against development of pre-diabetes as well as type 2 diabetes (T2D). This study also investigated whether whole grains had a protective effect in individuals with a known diabetogenic polymorphism of the TCF7L2 gene. The 8–10-y incidence of pre-diabetes and T2D in relation to the intake of whole grain was observed for 3180 women and 2297 men aged 35–56 y. A higher intake of whole grain (>59.1 g/d compared with <30.6 g/d) was associated with a 34% lower risk of developing prediabetes or T2D. The intake of whole grain correlated inversely with insulin resistance. The impact of whole grain intake was undetectable in men who harboured diabetogenic polymorphisms of the TCF7L2 gene. The authors concluded that a higher intake of whole grain is associated with decreased risk of deteriorating glucose tolerance including progression from normal glucose tolerance to prediabetes by mechanisms likely tied to effects on insulin sensitivity.

Tina Wirström, et al
Consumption of whole grain reduces risk of deteriorating glucose tolerance, including progression to prediabetes
American Journal of Clinical Nutrition, Published online 12 December 2012
http://ajcn.nutrition.org/cgi/content/abstract/97/1/179

Whole grains important for kids’ weight
This study was set in eight rural communities in the US and aimed to examine the relationship between intake of whole grains and BMI in children. 792 children (8-11 years old) were including in the study and associations between whole grain intake and BMI were examined. Dietary intake was assessed and children were classified into three categories according to servings of whole grain intake: <1·0 serving/d, 1·0–1·5 servings/d and >1·5 servings/d. Whole grain intake was inversely associated with BMI Z-score. Children who consumed >1·5 servings of whole grains/d had a 40 %
lower risk of being obese compared with children who consumed <1·0 serving/d. interestingly, other potential dietary predictors of body weight including fruit, vegetable and dairy intakes did not change the observed associations. The authors concluded that increasing the intake of whole grains as part of an overall healthy lifestyle may be beneficial for children to achieve and maintain a healthy weight.

Silvina F Choumenkovic et al,
Whole grain consumption is inversely associated with BMI Z-score in rural school-aged children
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8805932

Lifting the lid on legumes
A recent review describes the non-nutritive biologically active components in legumes and discusses their wide ranging biological activities within the body. The potential benefits of these compounds, particularly their antioxidant properties and their role in the prevention of non-communicable chronic diseases such as coronary heart disease, stroke, cancer and diabetes is also discussed.

Jagdish Singh, Partha Sarathi Basu
Non-Nutritive Bioactive Compounds in Pulses and Their Impact on Human Health: An Overview
Food and Nutrition Sciences, Vol.3 No.12, December 2012
http://www.scirp.org/journal/PaperInformation.aspx?paperID=25289#abstract

Healthy baking with beans
A recent study examined the effects of processed pulse powder (navy bean, lentil and chickpea) on postprandial glycaemic response and appetite. Three randomized, within-subject experiments on healthy young men were conducted. The results indicated that navy bean powder, lentil powder and chickpea powder maintain their low GI and satiating effects, regardless of processing. The author concluded that pulse powder can be used as a value-added food ingredient to moderate glycaemic response and increase satiety.

Liu, Yudan
Acute Effects of Navy Bean Powder, Lentil Powder and Chickpea Powder on Postprandial Glycaemic Response and Subjective Appetite in Healthy Young Men
University of Toronto, MSc Thesis 2012
https://tspace.library.utoronto.ca/handle/1807/33293

Twitter (please feel free to use!)

- 25% of Aussies (over 25) have diabetes or pre-diabetes, whole grains may help prevent pre-diabetes and diabetes http://tinyurl.com/b59hjj3
- Study finds kids who eat more whole grains have a 40% lower risk of being obese compared with kids who eat less http://tinyurl.com/9wmoqx2
- #GLNC recommends Aussies eat at least 3 serves of whole grain foods daily. It’s easy to achieve, find out how http://tinyurl.com/cf74wov
- Achieving the #GLNC recommended 3 serves of whole grains each day is as easy as a bowl of whole grain cereal and a wholemeal sandwich
- Legumes contain a wide range of ‘bio-active components’ and emerging evidence suggests they promote health http://tinyurl.com/axxa3cg
- Study finds that legumes maintain their low GI and effects on satiety when used as flour. Try this muffin recipe http://tinyurl.com/bxmr7rl
• Aussie’s eat 18.5 grams of legumes per week, despite producing 2.5 mill tonnes a year. Here’s some helpful tips http://tinyurl.com/9wcybc6

For further details contact:

Chris Cashman, APD
Nutrition Project Officer
Grains & Legumes Nutrition Council
Email: c.cashman@glnc.org.au
Call: 02 8877 7877