



## TAKE YOUR PULSE, AUSTRALIA

— *The most commonly asked nutritional questions about pulses.*

### What are pulses?

'Pulses' is the generic name given to chickpeas, beans, peas and lentils such as kidney beans, mungbeans (and sprouts), soybeans (and soy products), peanuts, garden peas, broad beans, green, red and yellow lentils and even wattle seeds. Pulses are also known as 'legumes', which are plants that house their seeds in pods.

They have made a significant contribution to the diets of many cultures around the world for thousands of years. Chances are you've been enjoying pulses in your diet without knowing what they are, eg. chickpeas are the basic ingredient in *Hummous*.

### Where can I buy pulses?

Pulses are readily available at supermarkets, selected fresh produce retailers and health food stores. They are available canned, dried and pre-cooked/vacuum-packed.

### How much do pulses cost?

Pulses are surprisingly inexpensive. The price of most pulses compares with other low-cost staple items such as rice and pasta.

### Why should we include pulses in our diet?

Pulses taste good and are nutritious, versatile and inexpensive. They are in the 'eat more' category of the healthy eating pyramid produced by the Australian Nutrition Foundation. Pulses are cholesterol-free and most are low fat (except soybeans and peanuts). The majority of fatty acids in pulses are unsaturated - they contain both monounsaturated and essential polyunsaturated fatty acids. These unsaturated fatty acids lower the total cholesterol and the harmful LDL (low density lipoprotein) cholesterol levels in the blood when substituted for saturated fatty acids in the diet.

Pulses are an excellent source of vegetable protein. They are high in minerals such as iron, calcium, magnesium and potassium, vitamins such as the B vitamins thiamine, niacin and folate, and essential trace minerals copper, manganese, molybdenum, selenium and zinc. Sprouting legume seeds such as mungbeans boosts vitamin C by about 400%, with a cup of most sprouts providing as much vitamin C as three glasses of orange juice. Vitamin A also jumps by about 300% with sprouting.

They are useful for people with coeliac disease (ie. those requiring a gluten-free diet), diabetics, and people who need to watch their blood sugar levels because pulses are high in complex carbohydrates and offer a 'slow-release' of sugar into the bloodstream.

Pulses are high in fibre. Soluble fibre forms a gel in our digestive system and is associated with delaying sugar entry into the intestine, reducing blood cholesterol levels and decreasing rates of heart disease while insoluble fibre can help prevent digestive disorders and cancers, and plays a role in weight management. Unfortunately, most Australians consume only half to two thirds of the recommended daily intake of 30g of fibre. Lack of fibre causes constipation and has been linked to an increased incidence of colon and rectum cancers, haemorrhoids, heart disease and diabetes.

## How do I prepare and cook pulses?

Preparation will vary according to the variety and kind of pulse. Some dried pulses need to be soaked in water before cooking, while canned varieties such as kidney beans, are ready to serve. 'Quickpulse™' packs (an Australian brand which is pre-cooked and vacuum-packed) require no refrigeration and can be added directly to your recipe. Red lentils and split peas need no soaking and are the 'fast food' pulses for people on the go. Red lentils are fully cooked in about 15 minutes in a regular saucepan.

Soaking can be done overnight or before you leave for work in the morning, so the pulses are ready to add to the evening meal. Pressure cooking (no pre-soaking required) takes between 10 and 20 minutes and helps preserve nutrients. Soaked or cooked pulses keep in the refrigerator for several days and they can be pre-cooked and frozen.

## Do pulses cause flatulence (or wind)? What can I do about it?

Flatulence is caused by complex sugars (oligosaccharides) which can't be digested but are used by friendly intestinal bacteria.

Pulses can cause flatulence in people who are unaccustomed to eating them. If flatulence is an embarrassing problem that puts you off eating pulses, this may be a signal that your diet does not contain enough fibre. Once your digestive system becomes used to a fibre-rich diet, flatulence problems will decrease. It's best to start increasing your intake of pulses slowly, increasing to an optimum daily intake of fibre (at least 30g). Other helpful ways of minimising flatulence include throwing out the soaking water (along with many of the offending sugars), adding particular herbs (eg. cumin seed) to counteract the sugars and eating pulses that cause the fewest problems (eg. lentils, peas and chickpeas).

## Do all pulses taste the same?

No! Pulses offer a variety of tastes, textures and colours - once you start experimenting you will discover each pulse has its own distinctive flavour. Use them to enhance the taste of soups, salads, sweets, meat or vegetarian dishes, or enjoy them with sauces and dressings. Pulses such as chickpeas, mung beans, soybeans and garden peas also make great snacks for children.

## Who contributes to the Australian pulse industry and where are pulses grown?

The Australian pulses industry is relatively new - pulses were only grown large-scale on Australian farms since the early 1980s. Since then the industry has boomed and is worth an estimated \$500 million a year to the economy.

The Australian pulses industry involves growers in most states; agricultural scientists and consultants who support the growers and others in the industry; service and input providers; transporters and handlers; food manufacturers and marketing and food service industry professionals.

### Further information:

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Reading: Passion for Pulses – A Feast of Beans, Peas and Lentils from around the World, compiled by Nancy Longnecker, © Cooperative Research Centre for Legumes in Mediterranean Agriculture, The University of WA 1999.

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