



PULSES

and the Gluten-Free Diet

COOKING WITH BEANS, PEAS, LENTILS AND CHICKPEAS



TABLE OF CONTENTS

| | |
|---|----|
| CANADA'S PULSE GROWING AREAS | 3 |
| | |
| TYPES OF PULSES | 4 |
| | |
| WHAT ARE PULSES? | 6 |
| | |
| HEALTH BENEFITS OF PULSES | 6 |
| | |
| CELIAC DISEASE & THE GLUTEN CONNECTION | 8 |
| | |
| NUTRITION & THE GLUTEN-FREE DIET | 9 |
| | |
| BUYING, STORING & COOKING PULSES | 12 |
| | |
| USING PULSES IN BAKED RECIPES | 14 |
| | |
| PULSE PURÉES & BROWN RICE BLEND | 16 |
| | |
| RECIPES | 17 |
| Sides & Meals | 18 |
| Breads, Biscuits & Crêpes | 20 |
| Breakfast Muffins & Breads | 23 |
| Bars & Crisps | 26 |
| Cakes & Cupcakes | 27 |
| Cookies | 29 |
| | |
| RESOURCES | 31 |



Some of the information in this booklet was originally developed by Pulse Canada and featured in the booklet entitled ***Pulses: Cooking with beans, peas, lentils and chickpeas.***

Revisions and new content for ***Pulses and the Gluten-Free Diet: Cooking with beans, peas, lentils and chickpeas*** were developed by **Shelley Case, RD**, consulting dietitian and author of *Gluten-Free Diet: A Comprehensive Resource Guide*. Gluten-free recipes were developed by **Carol Fenster, PhD**, consultant and author of several gluten-free cookbooks including *100 Best Gluten-Free Recipes*, *1,000 Gluten-Free Recipes*, *Gluten-Free Quick & Easy*, *Gluten-Free 101*, *Wheat-Free Recipes & Menus* and *Cooking Free*, unless otherwise noted.

Discover a tasty, nutritious and versatile food...pulses. Enjoyed by many cultures around the world for centuries, pulses make wonderful main dishes, soups, salads, appetizers, snacks and even baked goods! Explore new ways to include pulses in the gluten-free diet.

This booklet contains information about the various types of pulses and their nutritional and health benefits. It also features tips on buying and preparing pulses, practical ways to incorporate them into meals and snacks and includes 26 delicious gluten-free recipes.

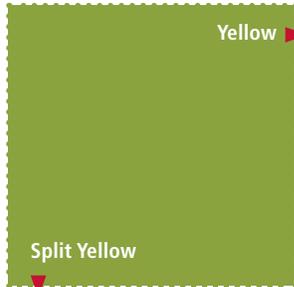
CANADA'S PULSE GROWING AREAS

 Bean growing regions  Chickpea growing regions  Lentil growing regions  Pea growing regions

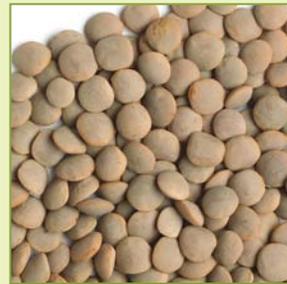


TYPES OF PULSES

Peas



Lentils



Beans

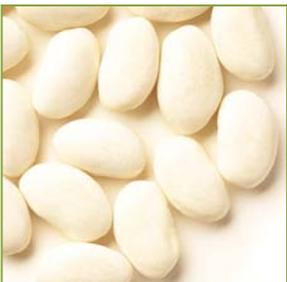
Navy ▶
Other names: White Pea,
Alubia Chica

Pinto ▶



◀ **Cranberry**
Other names: Romano,
Speckled Sugar, Borlotti

Black
Other names: Black Turtle, Preto

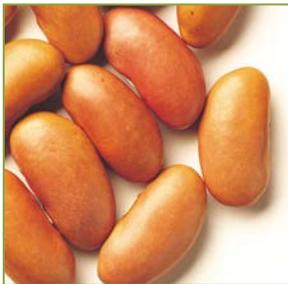


◀ **Great Northern**
Other name: Large White



Light Red Kidney ▶

◀ **Dark Red Kidney**

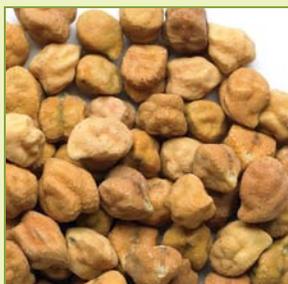


Chickpeas

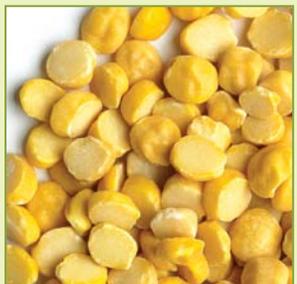


◀ **Garbanzo**
Other names: Kabuli, Bengal
gram, Kabuli chana

Desi ▶
Other names: Kala chana



Split Desi Chickpea
Other name: Chana dal



WHAT ARE PULSES?



Pulses are also known and often referred to as legumes. Pulse is the term for the edible seeds of legumes (plants with a pod), which includes:

- Dry peas
- Dry beans
- Lentils
- Chickpeas (garbanzo beans)

Pulses do not include fresh green beans or peas. Although they are related to pulses because they are also edible seeds of podded plants, soybeans and peanuts differ because they have a much higher fat content, whereas pulses contain virtually no fat.



Greek Lentil Salad, page 18

What are the health benefits of pulses?

Pulses are a nutritional power house! They are rich in protein, fibre and complex carbohydrates, low in fat and sodium and contain a variety of vitamins and minerals. These nutrients make pulses an important part of any healthy diet, including the gluten-free diet.

- Pulses are a **good source of plant protein**. Eating pulses with gluten-free grains, nuts or seeds ensures a high quality, complete protein.
- Pulses are **very high in fibre**. They contain both soluble and insoluble fibre. Soluble fibre helps lower cholesterol and other blood lipid levels, while insoluble fibre helps with digestion and maintaining regular bowel movements. High-fibre diets may also reduce the risk of certain cancers. Fibre-rich foods like pulses are often more filling than other foods, helping you keep full until your next meal, an added bonus for those watching their weight.



Breadsticks, page 22



Yellow Split Pea Soup, page 19

In order to avoid digestive issues when adding high-fibre foods like pulses to your diet, gradually increase your intake and make sure you drink enough water!

- Pulses have a **low glycemic index**. Most of the carbohydrates in pulses are fibre and resistant or slowly digested starch that prevent blood sugars from rising quickly after a meal or snack. Eating foods with a low glycemic index can help you to control your blood glucose levels, maintain high energy levels throughout the day, control your appetite and lower your risk of developing type 2 diabetes.
- Pulses are **low in fat and sodium** making them a heart healthy option. Pulses are also free of trans fats and cholesterol.
- Pulses are **an excellent source of folate**, a B vitamin, which has been shown to lower homocysteine levels. Evidence suggests that high levels of homocysteine (a type of protein) damages the lining of arteries and promotes plaque buildup and blood clots. Over time, this damage can slow or block blood flow to the heart or brain causing a heart attack or stroke. Folate

also plays a role in cell development. This is especially important during infancy and pregnancy when new cells are rapidly being formed.

- Pulses are a **good source of other B vitamins** such as thiamin (B1), riboflavin (B2), niacin (B3), pantothenic acid (B5) and pyridoxine (B6). B vitamins are essential for healthy cells and help our bodies create energy from foods.
- Pulses are **high in potassium**, a mineral which helps regulate fluid balance and maintain normal blood pressure.
- Pulses are a **good source of various minerals** such as iron, zinc, magnesium and calcium that play important roles in the body.

For more information about the nutrient composition of pulses see Tables A & B on pages 9-10.

Make sure to drink enough water when adding high fibre foods like pulses to your diet!

CELIAC DISEASE AND THE GLUTEN CONNECTION

Celiac disease is an inherited autoimmune disorder that affects 1:100 people. This digestive disease is triggered by the consumption of gluten - a protein found in wheat, rye and barley grains. When an individual with celiac disease ingests gluten, the lining of the small intestinal tract is damaged and important nutrients such as iron, calcium, vitamin D and folate cannot be absorbed. Gluten not only affects the gastrointestinal system but many other organ systems in the body. This can cause a wide range of symptoms that vary from one person to another. Some people can have numerous symptoms while others may only have a few symptoms.

Symptoms of celiac disease can include nausea, bloating, gas, abdominal pain, diarrhea or constipation (or both), lactose intolerance, weight loss, mouth ulcers, extreme fatigue, irritability, bone and joint pain, easy bruising of the skin, swelling of the ankles and hands, menstrual irregularities, elevated liver enzymes, migraine headaches, depression, ataxia (balance and coordination difficulties), neuropathy and a skin condition called dermatitis herpetiformis. Children may also have delayed growth, dental enamel defects and concentration and learning difficulties.

Untreated celiac disease can lead to nutritional deficiencies including anemia and osteoporosis, infertility (in both women and men), miscarriage, development of other autoimmune disorders and intestinal cancer.

The only treatment for celiac disease is a strict gluten-free diet for life. All forms of wheat, barley and rye must be eliminated. This includes kamut, spelt, einkorn, emmer, faro, durum, triticale, semolina, bulgur and couscous, barley malt, barley malt extract, barley malt flavour, malt vinegar, as well as barley-based beer, ale and lager.

Gluten is found in a wide variety of foods such as breads and other baked goods, cereals, pastas, soups, prepared meats (e.g. luncheon meats, hot dogs, burgers, imitation seafood), sauces, salad dressings, seasonings, snack foods, flavoured coffees and herbal teas, candies (e.g., licorice, chocolates, chocolate bars), as well as some supplements and medications.

Gluten sensitivity

Some individuals may be sensitive to gluten but do not have celiac disease. This is referred to as gluten sensitivity or non-celiac gluten-sensitivity (GS). Unlike celiac disease, GS is not an autoimmune disorder nor does it cause damage to the small intestine. However, symptoms are highly variable and may often be similar to celiac disease making diagnosis a challenge.

The treatment for GS is also a gluten-free diet. Further research about GS is needed in order to better understand the condition and its management.

The gluten-free diet

Many foods are naturally gluten-free including plain meat, poultry, fish, eggs, nuts, seeds, pulses, milk, yogurt, cheese, vegetables and fruits. A variety of gluten-free grains, flours and starches can be substituted for wheat, rye and barley. A growing number of gluten-free ready-to-eat baked products, baking mixes and flours, hot and cold cereals, crackers, snack foods, entrées, soups, pastas, sauces and snack bars can be found in health food and grocery stores, as well as from online retailers.

GLUTEN-FREE GRAINS, FLOURS AND STARCHES

- Amaranth
- Arrowroot
- Buckwheat
- Corn
- Flax
- Indian rice grass (Montina™)
- Mesquite flour
- Millet
- Nut flours (almond, hazelnut, pecan)
- Potato flour
- Potato starch

GLUTEN-FREE GRAINS, FLOURS AND STARCHES (CONT'D)

- Pulse flours (bean, chickpea/ garbanzo, lentil, pea)
- Quinoa
- Rice (black, brown, sweet, red, white & wild)
- Rice bran
- Rice polish
- Sorghum
- Soy
- Sweet potato flour
- Tapioca (cassava/manioc)
- Teff

Nutrition and the gluten-free diet

Many gluten-free products are made with refined flours and starches such as white rice flour, tapioca flour, potato starch and cornstarch. These are low in fibre, protein, iron, B vitamins and other nutrients. Also, these products are not usually enriched with vitamins and minerals like gluten-containing baked items, cereals, pastas and flours. Gluten-free products are also often higher in sugar, fat and calories.

Adding pulses can boost the nutritional quality of gluten-free foods. Pulses are rich in fibre, protein, vitamins and minerals, and are low in fat - the perfect addition to the gluten-free diet! See how pulses and pulse flours compare to rice and other common gluten-free flours and starches in tables below.

If you eat rice regularly try mixing half with pulses. This will provide a complete protein as well as boost the fibre, mineral and vitamin content of your diet.

TABLE A - NUTRITIONAL COMPOSITION OF PULSES AND WHITE AND BROWN RICE (PER 1 CUP/250 ml COOKED)

| Nutrients | Units | Black Beans | Navy Beans | Chickpea/ Garbanzo Beans | Whole Lentils | Dehulled Split Yellow Peas | White Rice (Enriched) | Brown Rice |
|-----------------|-------|-------------|------------|-----------------------------|---------------|-------------------------------|--------------------------|------------|
| Protein | g | 15.2 | 15.0 | 14.5 | 17.9 | 16.4 | 4.6 | 5.0 |
| Fibre | g | 15.0 | 19.1 | 12.5 | 16.0 | 16.3 | 1.4 | 3.5 |
| Carbohydrate | g | 41 | 47 | 45 | 40 | 41 | 41 | 45 |
| Iron | mg | 3.6 | 4.3 | 4.7 | 6.6 | 2.5 | 2.9 | 0.8 |
| Calcium | mg | 46 | 126 | 80 | 38 | 27 | 30 | 20 |
| Zinc | mg | 1.9 | 1.9 | 2.5 | 2.5 | 2.0 | 0.6 | 1.2 |
| Thiamin (B1) | mg | 0.42 | 0.43 | 0.19 | 0.34 | 0.37 | 0.34 | 0.19 |
| Riboflavin (B2) | mg | 0.10 | 0.12 | 0.10 | 0.15 | 0.11 | 0.03 | 0.05 |
| Niacin (B3) | mg | 0.9 | 1.2 | 0.9 | 2.1 | 1.7 | 3.6 | 3.0 |
| Pyridoxine (B6) | mg | 0.12 | 0.25 | 0.23 | 0.35 | 0.10 | 0.25 | 0.28 |
| Folate | mcg | 256 | 255 | 282 | 358 | 127 | 128 | 8 |

Dehulled: the outer layer (hull) is removed

TABLE B - COMPARISON OF PULSE FLOURS AND COMMONLY USED GLUTEN FREE FLOURS AND STARCHES (PER 1 CUP/250 ml)

| Nutrients & Units | | Pulse Flours | | | | Gluten-Free Flours & Starches | | | | |
|-------------------|-------|--------------|-----------|----------|------------|-------------------------------|------------------|------------|---------------|----------------------|
| Nutrients | Units | Black Bean | Navy Bean | Chickpea | Yellow Pea | White Rice Flour | Brown Rice Flour | Cornstarch | Potato Starch | Tapioca Starch/Flour |
| Protein | g | 30.9 | 30.2 | 25.7 | 24.7 | 9.4 | 11.4 | 0.3 | 0.2 | 0 |
| Fibre | g | 28.0 | 26.9 | 17.3 | 20.6 | 3.8 | 7.3 | 1.2 | 0 | 0 |
| Carbohydrate | g | 91 | 81 | 73 | 71 | 127 | 121 | 117 | 158 | 119 |
| Iron | mg | 11.8 | 9.3 | 6.8 | 5.4 | 0.6 | 3.1 | 0.6 | 2.9 | 0 |
| Calcium | mg | 189 | 347 | 92 | 90 | 16 | 17 | 3 | 19 | 0 |
| Zinc | mg | 4.7 | 4.0 | 3.5 | 3.9 | 1.3 | 3.9 | 0.1 | n/a | 0 |
| Thiamin (B1) | mg | 0.88 | 0.77 | 0.70 | 0.73 | 0.22 | 0.70 | 0 | 0 | 0 |
| Riboflavin (B2) | mg | 0.21 | 0.15 | 0.16 | 0.15 | 0.03 | 0.13 | 0 | 0 | 0 |
| Niacin (B3) | mg | 3.8 | 3.5 | 1.8 | 3.0 | 4.1 | 10.0 | 0 | 0 | 0 |
| Pyridoxine (B6) | mg | 0.56 | 0.41 | 0.54 | 0.12 | 0.69 | 1.2 | 0 | n/a | 0 |
| Folate | mcg | 343 | 303 | 334 | 15 | 6 | 25 | 0 | n/a | 0 |

Note: n/a = not available

PULSES FOR A HEALTHY PLANET

When you're eating products made from pulses, you're making a choice that is good for the environment. Pulses take less energy to grow than other crops, producing fewer greenhouse gases. Pulse crops are also one of the most environmentally-friendly sources of protein, contributing to sustainable food production by protecting and improving soil and water resources.

USING PULSES IN THE GLUTEN-FREE DIET

Pulses are versatile, delicious and an economical gluten-free option. Cooked lentils, peas, beans and chickpeas, as well as pulse flours can be incorporated into the diet in a variety of ways.

Easy ways to eat more pulses

- 1 Include 1/3 cup (75 ml) of cooked black, white or cranberry beans in an omelette to add protein and fibre.
- 2 Add 1 cup (250 ml) of cooked whole or puréed chickpeas or lentils to your spaghetti sauce or chili and reduce the amount of ground beef used. This lowers the fat while adding fibre.
- 3 Mix ½ cup (125 ml) of black beans into 1 cup (250 ml) of gluten-free salsa. Add some chopped cilantro and a squeeze of lime juice for an easy party dip. Serve with raw vegetables or gluten-free crackers.
- 4 Drain and purée 1 cup (250 ml) of canned lentils with your favourite herb and spread on toasted gluten-free bread, bagel or English muffin.
- 5 Add ½ cup (125 ml) of cooked lentils, chickpeas or beans to soups. This works best for broth style soups.
- 6 When making gluten-free pizza, add a handful of black beans to your usual toppings.
- 7 Toss 1 cup (250 ml) of canned chickpeas or black beans with any salad for a different twist.
- 8 Serve hummus with carrots, celery or other vegetables or spread the hummus on gluten-free crackers or rice cakes.
- 9 Mix beans or lentils with wild or brown rice and herbs and serve as a side dish or main meal.
- 10 Add puréed lentils, black or white beans to baked recipes. See Pages 19, 23, 27, 28 and 29 for recipes.
- 11 Mix ½ (125 ml) to 1 cup (250 ml) cooked and mashed white beans into chicken salad, tuna salad or egg salad for sandwiches.
- 12 Replace half the amount of oil in a muffin recipe with the same amount of puréed lentils to lower the fat while boosting the fibre and protein content.

How many pulses should I eat?

Canada's Food Guide recommends eating beans and lentils often as an alternative to meat products. One serving of pulses equals ¾ cup (175 ml) or about the size of a tennis ball.

The United States Department of Agriculture MyPyramid food guidance system includes pulses in both the Meat & Beans group as well as the Vegetable group. One-half cup of pulses counts as a two ounce equivalent in the Meat & Beans group or one serving in the Vegetable group. According to the USDA, consuming dry beans and peas is recommended for everyone because of their high nutrient content.

http://www.mypyramid.gov/pyramid/dry_beans_peas_table.html

Pulses can be eaten every day. If you do not eat pulses often, start by adding them to your diet gradually, as incorporating high fibre foods into the diet slowly will help to control bloating and gas if you are not used to them. Remember to drink plenty of fluids, especially water, when increasing fibre intake to help aid digestion.

Buying, storing and cooking pulses

You can find most pulse products in grocery stores, health and natural food stores. Look for pulses in the ethnic or canned food sections or in the baking ingredients aisle. Consult www.pulsecanada.com to find information on where to buy pulses and pulse flours. We recommend that you do not buy dry pulses from bulk bins as the risk of cross-contamination with gluten-containing grains and flours is high.

WHEN BUYING DRY PULSES, LOOK FOR:

- Bright coloured seeds
- Uniform size
- Smooth skins without chips or shriveled seed coats

Dry pulses will keep for years if stored in tightly covered containers in a cool, dark, dry place. It is best to use pulses within one year of purchasing. The longer a pulse is stored, the drier it becomes, which increases the cooking time.

Canned pulses are very convenient as they are ready-to-use. However, canned pulses should be rinsed and drained before using. This can reduce the sodium content by up to 40%. To do so, drain the contents of the can in a strainer, then rinse the pulses under tap water for at least 30 seconds and allow to drain for two more minutes.

Canned pulses store well in cool, dry places. They may be stored for one year.

When buying canned pulses make sure to read the label. Avoid those with added wheat flour or wheat starch.

SOAKING TIPS AND METHODS

- Be sure to check all dry pulses before rinsing or soaking. Remove pulses with shriveled or broken skins or the occasional pebble, twig or gluten-containing grains (wheat, rye or barley).
- Dry beans, whole peas and chickpeas must be soaked prior to cooking because their skins do not readily absorb water.
- Dry lentils and split peas do not need to be soaked. Simply rinse them before cooking.

For every 1 cup (250 ml) of pulses, soak with 3 cups (750 ml) water. Whole peas can be soaked for 1-2 hours. Beans and whole chickpeas require longer soaking than whole peas (e.g., minimum 4 hours; preferably soak for 8 hours or over night).

| SOAKING METHOD FOR DRY PULSES | INSTRUCTIONS |
|-------------------------------|--|
| Long, cold soak or overnight | <ul style="list-style-type: none">• Let stand 12 hours or overnight in refrigerator |
| Quick soak | <ul style="list-style-type: none">• Bring pulses and water to boil in a saucepan• Boil gently for 2 minutes• Remove from heat, cover, and let stand for 1 hour |
| Microwave soak | <ul style="list-style-type: none">• Combine pulses and water in microwavable dish• Cover and microwave on high for 10-15 minutes• Let stand for 1 hour |

Always discard the soaking water by putting pulses into a strainer and rinsing them well. This washes away the carbohydrates and sugars that cause gas.

COOKING TIPS AND METHODS

- Make sure your saucepan is big enough, as pulses double or triple in size during cooking.
- To prevent foaming, add 1 teaspoon (5 ml) of oil to the cooking water.
- Seasonings like garlic, onion or herbs can be added while cooking pulses.
- Always cook pulses slowly, as cooking them too quickly can break the seed coats.
- Cooking time guidelines are provided in Table D. Note that cooking times may vary based on a number of factors, including age of the pulses, elevation, water

hardness, etc. The intent is to cook pulses until they are tender. To achieve optimal cooking, pulses can be tested as they near the prescribed cooking time.

- Tomatoes, vinegar or other acidic ingredients should not be added until pulses are tender. Acids slow the cooking process.
- Beans naturally have a toxic compound in them called phytohemagglutinin. This is destroyed by adequate cooking. For slow cooker recipes, pre-soaked beans should be boiled for 10-12 minutes in fresh water before adding to the crock pot.

Check cooking pulses periodically to make sure they don't boil dry; add more water or broth if necessary.

STORING COOKED PULSES

Cooked pulses can be stored in the refrigerator for up to 5 days or in the freezer for up to 6 months. Separate cooked pulses into 1 or 2 cup (250 or 500 ml) portions and freeze in freezer bags or small containers. Cooking a big batch of pulses to freeze will save you time on delicious meals like soups, casseroles or other favourite dishes.

TABLE D - COOKING METHODS & TIMES FOR DRY PULSES

| | <i>Beans</i> | <i>Whole Peas</i> | <i>Split Peas</i> | <i>Whole Lentils</i> | <i>Split Lentils</i> | <i>Whole Chickpeas</i> | <i>Split Chickpeas</i> |
|--|---------------------------|---------------------------|-------------------|---------------------------|----------------------|---------------------------|------------------------|
| Rinse | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Soak | Yes | Yes | No | No | No | Yes | No |
| Amount of water per 1 cup (250 ml) dry pulses | 2½-3 cups (625 to 750 ml) | 2½-3 cups (625 to 750 ml) | 2 cups (500 ml) | 2½-3 cups (625 to 750 ml) | 2 cups (500 ml) | 2½-3 cups (625 to 750 ml) | 2 cups (500 ml) |
| Cooking time | 1-1½ hrs. | 1½-2 hrs. | 45 min. | 10-30 min. | 5-15 min. | 1½-2 hrs. | ½-1 hrs. |
| Pressure cook time (at 15 psi)* | 8-12 min. | 5-7 min. | No | No | No | 12-15 min. | 5-7 min. |
| Yield from 1 cup (250 ml) dry pulses | 2½ cups (625 ml) | 2½ cups (625 ml) | 2 cups (500 ml) | 2½ cups (625 ml) | 2 cups (500 ml) | 2½ cups (625 ml) | 2 cups (500 ml) |

* Pressure cook times are for pulses that have been pre-soaked and are based on the "quick" or "cold water" release method, in which the pressure cooker is placed under cold water after removing from the burner to lower pressure. If a "natural" release method is used instead (pressure is left to fall on its own), the cooking times need to be reduced.

BAKING SODA

Some recipes call for baking soda (sodium bicarbonate) to shorten the cooking process, especially if using hard water. Baking soda increases

the absorption of water, but it also destroys thiamin, an important B vitamin found in pulses. Baking soda may also make the texture of pulses too soft, an undesired side effect. Therefore, using baking soda to aid in

cooking pulses is not recommended. If hard water is your only choice and you need to add baking soda, limit the amount to 1/8 teaspoon per 2 cups (0.5 ml per 500 ml) water.

USING PULSES IN GLUTEN-FREE BAKED RECIPES



Oatmeal-Coconut Raisin Cookies, page 29



Pizza Crust, page 22

BENEFITS OF BAKING WITH PULSES:

- Using pulses instead of commonly used gluten-free flours and starches can boost the protein, fibre and vitamin and mineral content of foods.
- The high protein content of pulses improves the texture of baked goods.
- The high fibre content and moisture from pulses extends the shelf life of baked goods.
- Baked goods may be heavier and more dense when made with pulses, while crusts are smoother and remain fresher for a longer time.

Gluten-free baking tips

- To measure flour, whisk it in the canister a few times to aerate it and then lightly spoon it into a measuring cup before leveling it off with a knife. Don't use the measuring cup as a scoop; you'll get up to 20% more flour in the recipe which can result in dry baked items. Don't pack the flour down and don't measure dry ingredients like flour or sugar in spouted glass measuring cups (meant for liquids) because you may get more than necessary.
- To avoid cross-contamination with other gluten-containing grains and flours, buy gluten-free flours and pulses in sealed packages rather than in bulk bins. We used flours from Best Cooking Pulses and Bob's Red Mill to develop the recipes in this resource book.
- To replace unsalted butter with dairy-free margarine or buttery spread – both contain salt – you may need to reduce the salt in the recipe by 25%. Be sure to read the labels to make sure these dairy substitutes are appropriate for your diet. In the United States, Earth Balance buttery spreads are gluten-free, dairy-free and available in soy and soy-free versions. In Canada, Becel Vegan is gluten-free and lactose-free. Although low-calorie margarines or buttery spreads may be used in cooking, they are not appropriate for baking because their higher water content can upset the balance between liquid and dry ingredients.
- Baking recipes work best with cow's milk or milk substitutes made from coconut, hemp, nuts, rice, or soy. Fat-free or unsweetened versions of these dairy substitutes are not recommended because they lack enough oil and sugar necessary for pleasant taste and texture.
- The high moisture content of pulse purées may require longer baking times.
- Pulse flours absorb more moisture than other flours. More liquid or eggs may be necessary in baking.



Blueberry-Lemon Quick Bread, page 25

Using xanthan gum

Gluten-free baked goods require xanthan gum or guar gum to prevent crumbling. These gums perform the function of gluten and are essential for success, so don't omit them.

GLUTEN-FREE BAKING TIPS (CONT'D)

- When measuring flours, be sure to fluff the flour with a whisk or fork and then spoon it into the measuring cup. Doing so will lighten the flour and avoid having a dense dry baked good.
- Don't leave gluten-free baked items in the pan to cool for too long. They will get a soggy bottom. Lift them out of the pan and let them finish cooling on a cooling rack.
- Xanthan gum is a very common ingredient in gluten-free baking. Make sure to follow amounts listed exactly, as using too much could lead to chewier, denser products, while using too little could result in a crumbly product.
- Many gluten-free baked good recipes call for more than one type of flour. The reason for this is because different gluten-free flours have different ratios

USING XANTHAN GUM

| WHERE? | HOW MUCH? |
|-----------------------|---|
| Cookies | ¼ tsp (1 ml) per cup (250 ml) of flour |
| Cakes | ½ tsp (2 ml) per cup (250 ml) of flour |
| Muffins, Quick Breads | ¾ tsp (4 ml) per cup (250 ml) of flour |
| Bread | 1 to 1½ tsp (5 ml - 7 ml) per cup (250 ml) of flour |
| Pizza | 2 tsp (10 ml) per cup (250 ml) of flour |

Be sure to follow the recommended times for mixing, blending or beating. Since gluten-free baked items have no gluten, there is no worry of over-working the gluten. The extra time needed to work the batter will help the xanthan gum complete its task as a thickener and binder.

of proteins and starches, not to mention flavours. Combining flours helps produce optimal end products in texture and taste.

- When baking gluten-free breads and rolls, it is important to use pans with sides or walls. This helps to keep the 'normal' shape of breads or rolls made without gluten. Gluten normally helps form and keep the classic round shapes of bread loaves and buns. Without the walls on the pan, the gluten-free bread or rolls you are attempting to make will most likely fall flat. Nonstick (gray, not black) metal pans are best for breads, muffins, cakes and cupcakes.
- Gluten-free baked goods are best eaten fresh! They tend to get dry and dense if left out for too long.
- Some recipes call for the batter to sit for 10-20 minutes. The reason for doing this is to give the baking powder/soda a chance to rise.



Chocolate Cake, page 28



Meat Loaf, page 19

Pulse purée recipe

Pulse purée can be made from canned or boiled pulses. Here are two methods:

STARTING WITH CANNED PULSES (LENTILS OR BEANS ARE BEST)

- 1 Rinse and drain a 15-ounce can of pulses; discard the liquid; yields about 1 ¼ cups (300 ml) pulses.
- 2 Place the pulses in a food processor, add ¼ cup (50 ml) hot water and purée (scraping down sides of bowl frequently) until the mixture has the consistency of canned pumpkin, about 3 minutes. If needed, add additional water, 15 ml (1 tablespoon) at a time, to reach this consistency.
- 3 Makes about 1 cup (250 ml) purée. Refrigerate or freeze unused purée (see tips for storing cooked pulses).

STARTING WITH RAW PULSES

- 1 Add ⅓ cup (75 ml) sorted and rinsed raw lentils or beans to 2 cups boiling water. Cook according to Table D until soft. Drain; discard the cooking water, leaving you with about 1 ¼ cups (300 ml) cooked pulses.
- 2 Place lentils in a food processor, add ¼ cup (50 ml) hot water and purée (scraping down sides of bowl frequently) until the mixture has the consistency of canned pumpkin, about 3 minutes. If needed, add additional water, 15 ml (1 tablespoon) at a time, to reach this consistency.
- 3 Makes about 1 cup (250 ml) purée. Refrigerate or freeze unused purée.

Check out tasty recipes using pulse purées on pages 19, 23, 27, 28 & 29.



Gingerbread Cupcakes, page 28

*Brown rice flour blend**

- 1½ cups (375 ml) brown rice flour
- 1½ cups (375 ml) potato starch
- 1 cup (250 ml) tapioca flour (also called tapioca starch)

Blend thoroughly. Store, tightly closed, in dark, dry place.

*Recipes using this flour blend are found on pages 21, 23, 24, 25, 27 & 28.

RECIPES

Sides & Meals

| | |
|----------------------------|----|
| Greek Lentil Salad* | 18 |
| Gluten-free Shake and Bake | 18 |
| Yellow Split Pea Soup* | 19 |
| Meat Loaf | 19 |
| Mexicana Chili* | 20 |

Breads, Biscuits & Crêpes

| | |
|--------------------|----|
| Biscuits | 20 |
| Cornbread | 21 |
| Crêpes* | 21 |
| Breadsticks | 22 |
| Pizza Crust | 22 |
| Pumpernickel Bread | 23 |

Breakfast Muffins & Breads

| | |
|------------------------------|----|
| Savory Mediterranean Muffins | 23 |
| Cranberry Orange Muffins | 24 |
| Banana Bread Mini-Loaves | 24 |
| Blueberry-Lemon Quick Bread | 25 |
| Pumpkin Bread | 25 |

Bars & Crisps

| | |
|--------------------|----|
| Chocolate Brownies | 26 |
| Oatmeal-Berry Bars | 26 |
| Apple Crisp | 27 |

Cakes & Cupcakes

| | |
|-----------------------------|----|
| Applesauce Spice Layer Cake | 27 |
| Chocolate Cake | 28 |
| Gingerbread Cupcakes | 28 |

Cookies

| | |
|----------------------------------|----|
| Peanut Butter Cookies | 29 |
| Oatmeal-Coconut Raisin Cookies | 29 |
| Speckled Chocolate Chip Cookies* | 30 |
| Anise-Apricot Biscotti | 30 |

RECIPE NOTES

* Recipes developed by Pulse Canada. All other recipes developed by Carol Fenster.

Nutritional analysis was done using foodfocus Nutritional Analysis Software Version 3.4.

For more information and recipes on pulses, go to www.pulsecanada.com.

LOOK FOR THESE SYMBOLS IN THE RECIPES THAT FOLLOW



Health Check

These recipes have been evaluated by the Heart and Stroke Foundation registered dietitians and are part of a healthy diet based on Canada's Food Guide.



Vegetarian choice



High fibre
(4 grams or more per serving)

Cooking Tips

Health Precautions

SIDES & MEALS



PREPARATION TIME: 25 MIN. / COOKING TIME: NONE

Greek Lentil Salad

Serves 10 (1 kg)

- 1-19 oz can (540 ml) lentils, rinsed and drained
- ½ cup (125 ml) calamata olives
- ½ cup (125 ml) onion, chopped
- 1½ cups (375 ml) grape tomatoes, halved
- ½ cup (125 ml) green peppers, chopped
- 1 cup (250 ml) cucumber, diced
- ¼ cup (50 ml) feta cheese, crumbled
- ¼ cup (50 ml) fresh parsley, chopped
- ¼ cup (50 ml) olive oil
- ¼ cup (50 ml) lemon juice
- 1 tbsp (15 ml) dried oregano



- 1 In a large bowl, combine lentils, olives, onion, tomatoes, green peppers, cucumber, feta cheese and parsley.
- 2 Whisk oil, lemon juice and oregano together.
- 3 Add parsley to salad and toss with dressing to coat.
- 4 Can be eaten right away or covered and left in fridge to marinate for 2 hours before serving. Salad can be made a day in advance.

| Nutrients Per Serving | | |
|-----------------------|---------------|----|
| Per 2/3 cup (100 g) | % Daily Value | |
| Calories (kcal) | 145 | |
| Protein (g) | 6 | |
| Fat (g) | 7 | 11 |
| Saturated Fat (g) | 1 | 6 |
| Carbohydrates (g) | 15 | 5 |
| Fibre (g) | 3 | 14 |
| Sodium (mg) | 102 | 4 |
| Potassium (mg) | 328 | 9 |
| Folate (mcg) | 110 | 50 |
| Calcium (mg) | 50 | 5 |
| Iron (mg) | 3 | 21 |
| Thiamin (mg) | 0.12 | 9 |
| Riboflavin (mg) | 0.08 | 5 |
| Niacin (ne) | 1.8 | 8 |
| Zinc (mg) | 0.93 | 10 |

This salad is a source of iron and folate. It's quick to prepare and has classic Mediterranean flavours.

PREPARATION TIME: 5 MIN.

Gluten-Free Shake and Bake

Makes 1 cup, use for coating vegetables, chicken, minute steaks or fish fillets before frying or baking to get a crisp, crunchy texture.

- ½ cup (125 ml) white bean flour or chickpea (garbanzo) flour*
- ½ cup (125 ml) crushed gluten-free corn flakes or bread crumbs
- 1 tsp (5 ml) sea salt
- 1 tsp (5 ml) celery salt
- 1 tsp (5 ml) dried parsley flakes
- ½ tsp (2 ml) sugar
- ½ tsp (2 ml) onion powder
- ½ tsp (2 ml) garlic powder
- ¼ tsp (1 ml) paprika
- ¼ tsp (1 ml) freshly ground black pepper

- 1 Crush the cornflakes or bread crumbs in a plastic bag with a rolling pin.
- 2 In a small bowl, whisk all the ingredients together until well blended. Pour into a shaker bag (brown paper bag or 1-gallon re-sealable plastic bag) or put the mix in a wide, shallow bowl and coat the food in it.
- 3 Preheat oven or frying oil. Moisten vegetables or meat with water.
- 4 Shake moistened vegetables or meat, 1 to 2 pieces at a time, in shaker bag. Discard any remaining mix and bag.
- 5 Fry foods or bake them at 400°F (205°C) in an ungreased or foil-lined baking pan until cooked through. Do not cover or turn food during baking.

| Nutrients Per Serving | | |
|-----------------------|---------------|----|
| 28 g (~3 tbsp) | % Daily Value | |
| Calories (kcal) | 88 | |
| Protein (g) | 5 | |
| Fat (g) | 0 | 0 |
| Saturated Fat (g) | 0 | 0 |
| Carbohydrates (g) | 16 | 5 |
| Fibre (g) | 4 | 16 |
| Sodium (mg) | 625 | 26 |
| Potassium (mg) | 298 | 9 |
| Folate (mcg) | 42 | 19 |
| Calcium (mg) | 50 | 5 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.2 | 15 |
| Riboflavin (mg) | 0.025 | 2 |
| Niacin (ne) | 1.3 | 6 |
| Zinc (mg) | 0.5 | 6 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 15 MIN. / COOKING TIME: 30 MIN.

Yellow Split Pea Soup

↑
High
Fibre

Makes 1.5 litres

- 1 tbsp (15 ml) canola oil
- ½ cup (125 ml) onions, chopped
- 1½ cup (375 ml) carrots, chopped
- 1 cup (250 ml) ham, diced
- 1 ½ cups (375 ml) dry yellow split peas, prepared according to package
- 2½ cups (625 ml) gluten-free reduced sodium vegetable broth
- 1 cup (250 ml) milk of choice
- Dash each of nutmeg, pepper and salt.

- 1) In a large stock pot, heat oil. Add onions and carrots and sauté vegetables until tender. Add ham and sauté until heated through.
- 2) Purée prepared split peas in blender or food processor, adding vegetable broth ½ cup (125 ml) at a time as needed to get puréed texture.
- 3) Add puréed peas to the stock pot, along with milk, any remaining vegetable broth, nutmeg, pepper and salt. Continue to heat until desired temperature is reached. Serve.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1 cup (250 ml) | % Daily Value |
| Calories (kcal) | 228 |
| Protein (g) | 16 |
| Fat (g) | 5 8 |
| Saturated Fat (g) | 1 6 |
| Carbohydrates (g) | 30 10 |
| Fibre (g) | 4 16 |
| Sodium (mg) | 662 28 |
| Potassium (mg) | 731 21 |
| Folate (mcg) | 83 38 |
| Calcium (mg) | 91 8 |
| Iron (mg) | 2 14 |
| Thiamin (mg) | 0.45 35 |
| Riboflavin (mg) | 0.23 14 |
| Niacin (ne) | 6.41 28 |
| Zinc (mg) | 1.9 21 |

Cook peas a day, week or month in advance. They can be frozen until you are ready to use them.

PREPARATION TIME: 10 MIN. / COOKING TIME: 40 TO 45 MIN.

Meat Loaf

Serves 4

- 1 can (8 oz) tomato sauce
- ¼ cup (50 ml) packed brown sugar
- 1 tsp (5 ml) dry mustard
- ½ tsp (2 ml) chili powder
- ¼ tsp (1 ml) ground cloves
- 1 garlic clove, minced
- 1 tbsp (15 ml) gluten-free worcestershire sauce
- 1 large egg, beaten
- ½ cup (125 ml) lentil or bean purée (see page 16)
- ½ cup (125 ml) gluten-free bread crumbs
- 1 tbsp (15 ml) dried minced onion
- ½ tsp (2 ml) table salt
- ¼ tsp (1 ml) black pepper
- 1 lb (450 g) extra-lean ground beef

- 1 Preheat oven to 350°F (180°C). Lightly grease an 8x8-inch square pan. In a small bowl, whisk together the tomato sauce, sugar, mustard, chilli powder, cloves, garlic and worcestershire sauce until well blended.
- 2 In a large bowl, whisk together half of the tomato mixture, the egg, lentil or bean purée, bread crumbs, onion, salt and pepper until well blended. Add the ground beef and mix with a spatula or with your hands until well blended. Place the mixture in the pan and spread the remaining tomato mixture on top.
- 3 Bake until nicely browned or until an instant-read thermometer registers 165°F (74°C) degrees when inserted into the center of the loaf, about 40 to 45 minutes. Serve immediately.

| Nutrients Per Serving | |
|-----------------------|---------------|
| ¼ pan | % Daily Value |
| Calories (kcal) | 442 |
| Protein (g) | 38 |
| Fat (g) | 15 23 |
| Saturated Fat (g) | 6 30 |
| Carbohydrates (g) | 38 13 |
| Fibre (g) | 3 12 |
| Sodium (mg) | 828 35 |
| Potassium (mg) | 812 23 |
| Folate (mcg) | 106 48 |
| Calcium (mg) | 90 8 |
| Iron (mg) | 7 50 |
| Thiamin (mg) | 0.28 21 |
| Riboflavin (mg) | 0.38 23 |
| Niacin (ne) | 12 52 |
| Zinc (mg) | 9 100 |



BREADS, BISCUITS & CRÊPES



PREPARATION TIME: 20 MIN. /
COOKING TIME: 6-8 HRS. ON LOW OR 4 HRS. ON HIGH

Mexicana Chili

Serves 12 (3.5 kg)

- 1 lb (450 g) lean ground beef
- 1 small onion, chopped
- 2 garlic cloves, minced
- 1-28 oz can (796 ml) diced tomatoes
- 1½ cups (375 ml) chunky salsa
- 1-12 oz can (341 ml) corn niblets, drained
- 1-19 oz can (540 ml) black beans, rinsed and drained
- ¼ cup (50 ml) fresh cilantro, chopped
- 4 green onions, chopped
- 1½ cups (375 ml) tomato sauce
- Dash salt and pepper
- 1 tsp (5 ml) ground cumin

- 1 In a medium frying pan, cook ground beef with onions and garlic over medium-high heat until beef is browned. Drain excess juice.
- 2 Put beef into slow cooker. Add rest of ingredients and stir until mixed.
- 3 Cook on low for 6-8 hours or on high for 3-4 hours.



High Fibre

Nutrients Per Serving

| 1 cup (250g) | % Daily Value |
|-------------------|---------------|
| Calories (kcal) | 157 |
| Protein (g) | 12 |
| Fat (g) | 4 7 |
| Saturated Fat (g) | 2 8 |
| Carbohydrates (g) | 21 7 |
| Fibre (g) | 5 20 |
| Sodium (mg) | 543 23 |
| Potassium (mg) | 513 15 |
| Folate (mcg) | 85 38 |
| Calcium (mg) | 47 4 |
| Iron (mg) | 3 19 |
| Thiamin (mg) | 0.16 12 |
| Riboflavin (mg) | 0.014 9 |
| Niacin (ne) | 4.2 18 |
| Zinc (mg) | 2.3 26 |

PREPARATION TIME: 10 MIN. / BAKING TIME: 15 TO 20 MIN.

Biscuits



- Makes 12 small biscuits
- 1 cup (250 ml) cornstarch
 - ½ cup (125 ml) white bean flour*
 - ¼ cup (50 ml) tapioca flour*
 - 2 tbsp (30 ml) sugar
 - 2 tbsp (30 ml) baking powder
 - ½ tsp (2 ml) baking soda
 - ½ tsp (2 ml) xanthan gum
 - ½ tsp (2 ml) table salt
 - 5 tbsp (75 ml) unsalted butter or buttery spread, room temperature, divided
 - ¾ cup (175 ml) milk of choice, room temperature

- 1 Generously grease an 8-inch round nonstick metal pan.
- 2 In the bowl of a food processor, process cornstarch, white bean flour, tapioca flour, sugar, baking powder, baking soda, xanthan gum and salt until well blended. Add 4 tbsp (50 ml) of butter and pulse until mixture forms pea-size balls.
- 3 With the motor running, add milk through the feed tube of food processor and process until a very soft dough forms.
- 4 Dip a metal ice cream scoop or 2-tbsp measuring cup into hot water, scoop out ball of dough and place in pan, rounded-side up. Continue with remaining dough, wetting the scoop each time and placing 12 balls close together so biscuits rise up, rather than spread out. Melt the remaining tbsp of butter and brush on biscuit tops. Cover the pan with plastic wrap; let stand 20 minutes in a warm place (85°F/30°C) while oven preheats.
- 5 Place rack in lower third of oven. Preheat oven to 375°F (190°C).
- 6 Bake until biscuit tops are lightly browned, about 15 to 20 minutes. Transfer biscuits to wire rack and cool 10 minutes. Serve immediately.

Nutrients Per Serving

| 1 biscuit (35g) | % Daily Value |
|-------------------|---------------|
| Calories (kcal) | 132 |
| Protein (g) | 2 |
| Fat (g) | 5 8 |
| Saturated Fat (g) | 3 16 |
| Carbohydrates (g) | 19 6 |
| Fibre (g) | 1 6 |
| Sodium (mg) | 305 13 |
| Potassium (mg) | 121 3 |
| Folate (mcg) | 14 7 |
| Calcium (mg) | 104 9 |
| Iron (mg) | 1 4 |
| Thiamin (mg) | 0.04 3 |
| Riboflavin (mg) | 0.04 3 |
| Niacin (ne) | 0.5 2 |
| Zinc (mg) | 0.2 3 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 20 TO 25 MIN.

Cornbread



Makes 9 servings

- 1 cup (250 ml) gluten-free cornmeal
- ½ cup (125 ml) white bean flour*
- ½ cup (75 ml) brown rice flour blend (see page 16)
- ½ cup (75 ml) sugar
- 2 tsp (10 ml) baking powder
- 1 tsp (5 ml) xanthan gum
- ½ tsp (2 ml) table salt
- ¼ tsp (dash) baking soda
- 2 large eggs, room temperature
- 1 cup (250 ml) milk of choice, room temperature
- ½ cup (125 ml) unsalted butter or buttery spread, melted

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Generously grease an 8-inch square nonstick metal pan.
- 2 In a medium mixing bowl, whisk together cornmeal, white bean flour, rice flour blend, sugar, baking powder, xanthan gum, salt and baking soda until well blended. Using an electric mixer on low speed, beat in eggs, milk and butter until the batter thickens slightly, about 30 seconds.
- 3 Spread the batter evenly in pan. Let stand 10 minutes.
- 4 Bake until the top is golden brown and a toothpick inserted into the center of bread comes out clean, about 25 to 30 minutes. Cool bread in a pan on a wire rack for 10 minutes, then remove bread from the pan and cool another 15 minutes on the wire rack. Cut into 9 squares and serve slightly warm.

Nutrients Per Serving

| 1 slice (98g) | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 258 | |
| Protein (g) | 6 | |
| Fat (g) | 13 | 20 |
| Saturated Fat (g) | 7 | 4 |
| Carbohydrates (g) | 31 | 10 |
| Fibre (g) | 3 | 12 |
| Sodium (mg) | 247 | 10 |
| Potassium (mg) | 230 | 7 |
| Folate (mcg) | 31 | 10 |
| Calcium (mg) | 94 | 9 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.11 | 8 |
| Riboflavin (mg) | 0.14 | 9 |
| Niacin (ne) | 2 | 9 |
| Zinc (mg) | 1 | 11 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 5 MIN. / BAKING TIME: 10 MIN.

Crêpes



Makes six 8-inch crêpes

- 1 egg
- ½ cup (125 ml) milk of choice
- 1 tsp (5 ml) canola oil
- 1 tbsp (15 ml) parsley, chopped
- 1 tbsp (15 ml) grated parmesan or substitute of choice
- Pinch salt and pepper
- ½ cup (125 ml) chickpea (garbanzo) flour

- 1 In medium bowl, whisk egg, milk and canola oil. Continue whisking and add parsley, parmesan, salt and pepper.
- 2 Add the chickpea flour to the egg and milk mixture and whisk until smooth with no lumps.
- 3 Heat an 8-inch non-stick crêpe pan over medium heat and lightly grease. Using a ¼ cup (50 ml) measure, scoop batter into hot pan and quickly tilt the pan using a circular motion so that the batter evenly coats the surface.
- 4 Cook the crêpe for about 30 seconds, until bubbles show on the surface and the bottom is light brown. Loosen with a spatula, turn and cook the other side. Can be served plain or with various toppings- cream cheese and smoked salmon are delicious on this crêpe!

Nutrients Per Serving

| 1 crêpe | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 63 | |
| Protein (g) | 4 | |
| Fat (g) | 3 | 4 |
| Saturated Fat (g) | 1 | 3 |
| Carbohydrates (g) | 6 | 2 |
| Fibre (g) | 1 | 4 |
| Sodium (mg) | 100 | 4 |
| Potassium (mg) | 117 | 3 |
| Folate (mcg) | 47 | 21 |
| Calcium (mg) | 46 | 4 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.05 | 4 |
| Riboflavin (mg) | 0.08 | 5 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0 | 0 |

This recipe can be modified for sweet fillings such as fruit or jam. Instead of the parsley, parmesan, salt and pepper, whisk in 1 tsp (5 ml) vanilla and ¼ tsp (1 ml) ground cinnamon.



PREPARATION TIME: 12 MIN. / BAKING TIME: 40 TO 55 MIN.

Breadsticks



Makes 10 breadsticks

- 1 tbsp (15 ml) instant (quick-rise) yeast
- 1 ½ tsp (7 ml) sugar
- 1 cup (250 ml) warm milk (110°F/43°C) of choice, plus 2 tbsp (30 ml) for brushing on top
- ½ cup (125 ml) white bean flour*
- ½ cup (125 ml) cornstarch
- ½ cup (125 ml) parmesan cheese or substitute of choice, grated
- 1 tbsp (15 ml) olive oil
- 2 tsp (10 ml) xanthan gum
- 1 tsp (5 ml) onion powder
- ½ tsp (2 ml) table salt
- 1 tsp (15 ml) poppy seeds

- 1 Preheat oven to 400°F (205°C) for 10 minutes; then turn it off. Dissolve yeast and sugar in 1 cup (250 ml) of milk and let stand 5 minutes. Grease a 13x9-inch baking sheet or line with parchment paper.
- 2 In a medium bowl, beat yeast-milk mixture, bean flour, cornstarch, parmesan cheese, oil, xanthan gum, onion powder and salt on medium speed for 30 seconds. Dough will be soft and sticky.
- 3 Place dough in 1 gallon (4 quarts or 3.75 L), heavy-duty plastic freezer bag. Snip ½-inch diagonally on corner with scissors. Squeeze dough out of plastic bag onto sheet in 12 strips, each 1-inch wide by 6 inches long. Brush breadsticks with remaining milk; sprinkle with poppy seeds.
- 4 Place in oven to rise for 20 to 30 minutes. Then, leaving breadsticks in oven, turn oven to 400°F (205°C) and bake until golden brown - about 20 minutes. Rotate cookie sheet halfway through baking to assure even browning. Cool 10 minutes on wire rack; serve slightly warm.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1 breadstick (35g) | % Daily Value |
| Calories (kcal) | 112 |
| Protein (g) | 5 |
| Fat (g) | 4 |
| Saturated Fat (g) | 1 |
| Carbohydrates (g) | 14 |
| Fibre (g) | 2 |
| Sodium (mg) | 174 |
| Potassium (mg) | 190 |
| Folate (mcg) | 47 |
| Calcium (mg) | 126 |
| Iron (mg) | 1 |
| Thiamin (mg) | 0.08 |
| Riboflavin (mg) | 0.15 |
| Niacin (ne) | 2 |
| Zinc (mg) | 0.7 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 25 TO 30 MIN.

Pizza Crust



Makes 6 slices

- 1 tbsp (15 ml) quick-rising yeast
- 1 cup (250 ml) warm milk (110°F/43°C) of choice
- 2 tsp (10 ml) sugar
- 2 ½ cup (150 ml) white bean flour*
- ½ cup (75 ml) tapioca flour*
- 2 tsp (10 ml) xanthan gum
- ½ tsp (2 ml) table salt
- 1 tsp (5 ml) Italian seasoning
- 1 tbsp (15 ml) canola oil
- Rice flour for dusting
- Sauce and toppings of your choice

- 1 Place racks in bottom and middle positions of oven. Preheat oven to 400°F (205°C). Dissolve yeast and sugar in warm milk for 5 minutes. Generously grease a 12-inch nonstick metal pizza pan.
- 2 In a medium bowl, whisk together white bean flour, tapioca flour, xanthan gum, salt and Italian seasoning. Add yeast-milk mixture and oil and beat with an electric mixer on medium-low until thoroughly blended. Dough will be very soft and sticky.
- 3 Place the dough on the pan and liberally sprinkle with rice flour. Press dough on the pan with hands, continuing to dust dough with flour to prevent sticking. Make edges thicker to contain toppings.
- 4 Bake pizza crust for 10 minutes on the bottom rack. Remove from oven and add sauce and toppings. Bake another 15 to 20 minutes on the middle rack or until top is nicely browned. Cut in 6 wedges and serve immediately.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1/6 of round | % Daily Value |
| Calories (kcal) | 132 |
| Protein (g) | 6 |
| Fat (g) | 3 |
| Saturated Fat (g) | 1 |
| Carbohydrates (g) | 20 |
| Fibre (g) | 4 |
| Sodium (mg) | 61 |
| Potassium (mg) | 343 |
| Folate (mcg) | 86 |
| Calcium (mg) | 93 |
| Iron (mg) | 1 |
| Thiamin (mg) | 0.15 |
| Riboflavin (mg) | 0.2 |
| Niacin (ne) | 2 |
| Zinc (mg) | 1 |

*Refer to pages 14-15 on how to correctly measure flour.

BREAKFAST MUFFINS & BREADS



PREPARATION TIME: 15 MIN. / BAKING TIME: 2 HRS.

Pumpernickel Bread



Makes 12 servings of 1 slice

- 2¼ tsp (11 ml/1 packet) active dry yeast
- ¼ cup (175 ml) warm milk of choice (110°F/43°C)
- ½ cup (75 ml) packed dark brown sugar
- ¾ cup (175 ml) bean purée (see page 16)
- 2 large eggs, room temperature
- 2 tbsp (30 ml) canola oil
- 1 tsp (5 ml) grated orange rind
- 1 tsp (5 ml) apple cider vinegar
- 2 cups (500 ml) brown rice flour blend* (see page 16)
- 1 tbsp (15 ml) cocoa
- 1 tbsp (15 ml) caraway seeds
- 1 tsp (5 ml) onion powder
- 1 tsp (5 ml) xanthan gum
- ¾ tsp (4 ml) table salt

- 1 Combine the yeast, 2 tsp (10 ml) of the sugar and milk. Set aside for 5 minutes. Generously grease a 9x5-inch nonstick loaf pan.
- 2 In the bowl of a heavy-duty stand mixer, combine the yeast-mixture with the remaining ingredients (including remaining sugar). Blend on medium speed for 2 minutes, scraping down the sides of the bowl with a spatula if necessary.
- 3 Place the dough in the pan and smooth the top with a wet spatula. Cover the pan lightly with foil and let the dough rise at room temperature 75-80°F (24-27°C) until it is level with the top of the pan.
- 4 Preheat the oven to 375°F (190°C). With a sharp knife, make three diagonal slashes ⅛th inch deep in the loaf so the steam can escape during baking.
- 5 Bake for 60 to 70 minutes or until an instant-read thermometer registers 210°F (100°C) when inserted into the center of the loaf. Do not under bake. Cover the bread with a foil tent after 20 minutes of baking to reduce over browning.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1 slice | % Daily Value |
| Calories (kcal) | 179 |
| Protein (g) | 4 |
| Fat (g) | 4 |
| Saturated Fat (g) | 0 |
| Carbohydrates (g) | 34 |
| Fibre (g) | 2 |
| Sodium (mg) | 176 |
| Potassium (mg) | 144 |
| Folate (mcg) | 46 |
| Calcium (mg) | 21 |
| Iron (mg) | 1 |
| Thiamin (mg) | 0.07 |
| Riboflavin (mg) | 0.1 |
| Niacin (ne) | 2 |
| Zinc (mg) | 0.6 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 20 TO 25 MIN.

Savory Mediterranean Muffins



Makes 12 servings

- 1 cup (250 ml) yellow pea flour*
- 1 cup (250 ml) brown rice flour blend* (see page 16)
- ¼ cup (50 ml) sugar
- 2 tsp (10 ml) baking powder
- 1 tbsp (15 ml) dried minced onion
- 1 tbsp (15 ml) grated parmesan cheese or substitute of choice
- 2 tsp (10 ml) dried oregano
- 1 tsp (5 ml) xanthan gum
- ¾ tsp (4 ml) table salt
- 1 cup (250 ml) milk of choice, room temperature
- ½ cup (125 ml) canola oil
- 2 large eggs, room temperature
- ¼ cup (50 ml) sun-dried tomatoes, chopped
- ¼ cup (50 ml) black olives, sliced

- 1 Place rack in middle of oven. Preheat oven to 375°F (190°C). Generously grease a standard 12-cup nonstick metal muffin pan.
- 2 In a medium mixing bowl, whisk together the yellow pea flour, rice flour blend, sugar, baking powder, onion, parmesan, oregano, xanthan gum and salt until well blended. With an electric mixer on low speed, beat in milk, oil and eggs until batter thickens slightly, about 30 seconds. Stir in tomatoes and olives.
- 3 Fill muffin pan with batter, filling the cups about ¾ full. Let stand for 10 minutes.
- 4 Bake until muffins are brown and a toothpick inserted into the center comes out clean, about 20 to 25 minutes. Cool muffins in the pan on a wire rack for 10 minutes, then remove the muffins from the pan and cool for 10 more minutes on the wire rack. Serve slightly warm.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1 muffin | % Daily Value |
| Calories (kcal) | 217 |
| Protein (g) | 5 |
| Fat (g) | 11 |
| Saturated Fat (g) | 1 |
| Carbohydrates (g) | 25 |
| Fibre (g) | 3 |
| Sodium (mg) | 310 |
| Potassium (mg) | 153 |
| Folate (mcg) | 12 |
| Calcium (mg) | 75 |
| Iron (mg) | 1 |
| Thiamin (mg) | 0.04 |
| Riboflavin (mg) | 0.1 |
| Niacin (ne) | 1.4 |
| Zinc (mg) | 1 |

There is a nice savoury flavour to these muffins, a change from the usual sweet morning muffins.

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 25 TO 30 MIN.

Cranberry Orange Muffins

Makes 12 servings

- 1 ¼ cups (300 ml) brown rice flour blend* (see page 16)
- ¾ cup (175 ml) yellow pea flour*
- ¾ cup (175 ml) sugar, plus 2 tsp (10 ml) for topping
- 1 tbsp (15 ml) baking powder
- 1 tsp (5 ml) xanthan gum
- ¾ tsp (4 ml) table salt
- 1 cup (250 ml) milk of choice
- ½ cup (125 ml) canola oil
- 1 tsp (5 ml) pure vanilla
- 2 large eggs, at room temperature
- Zest of 1 large orange
- ½ cup (125 ml) dried cranberries
- ½ cup (125 ml) chopped pecans or walnuts (optional)

- 1 Place a rack in the middle of the oven. Preheat the oven to 375°F (190°C) degrees. Generously grease a standard 12-cup nonstick muffin pan or line with paper liners.
- 2 In a medium mixing bowl, whisk together the rice flour blend, yellow pea flour, ¾ cup (175 ml) sugar, baking powder, xanthan gum and salt until well blended. With an electric mixer on low speed, beat in the milk, oil, vanilla, eggs and zest until batter thickens slightly, about 30 seconds. Stir in the cranberries and nuts (if desired). Divide the batter evenly in the pan and sprinkle with the remaining 2 tsp (10 ml) of sugar. Let stand 10 minutes.
- 3 Bake until the muffins are lightly browned and a toothpick inserted into the center comes out clean, about 25 to 30 minutes. Cool the muffins in the pan for 10 minutes on a wire rack, then transfer the muffins to the wire rack to cool for another 10 minutes. Serve slightly warm.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1 muffin | % Daily Value |
| Calories (kcal) | 251 |
| Protein (g) | 3 |
| Fat (g) | 11 17 |
| Saturated Fat (g) | 1 5 |
| Carbohydrates (g) | 36 12 |
| Fibre (g) | 1 4 |
| Sodium (mg) | 127 5 |
| Potassium (mg) | 96 3 |
| Folate (mcg) | 8 4 |
| Calcium (mg) | 68 6 |
| Iron (mg) | 1 7 |
| Thiamin (mg) | 0.01 1 |
| Riboflavin (mg) | 0.08 5 |
| Niacin (ne) | 1 4 |
| Zinc (mg) | 0 0 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 35 TO 40 MIN.

Banana Bread Mini-Loaves

Makes 12 servings

- ¾ cup (175 ml) yellow pea flour*
- ¾ cup (175 ml) brown rice flour blend* (see page 16)
- 2 tsp (10 ml) baking powder
- 1 tsp (5 ml) xanthan gum
- 1½ tsp (7 ml) cinnamon
- ½ tsp (2 ml) ground mace (optional)
- ½ tsp (2 ml) table salt
- ½ tsp (2 ml) ground nutmeg
- ⅛ tsp (dash) baking soda
- 2 large eggs, room temperature
- ⅔ cup (150 ml) honey
- ½ cup (125 ml) canola oil
- 2 large very-ripe bananas, mashed
- 1 tsp (5 ml) vanilla
- ½ cup (125 ml) chopped pecans (optional)

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Grease four 6x4-inch nonstick metal loaf pans. Pans can also be lined with parchment paper.
- 2 In a medium mixing bowl, whisk together the yellow pea flour, rice flour blend, baking powder, xanthan gum, cinnamon, mace, salt, nutmeg and baking soda until well blended.
- 3 Add the eggs, honey, oil, bananas and vanilla and beat with electric mixer on low speed just until blended. Increase speed to medium and beat another 30 seconds. Stir in nuts if desired. Spread batter evenly in pans. Let stand for 10 minutes.
- 4 Bake until loaves are browned and a toothpick inserted into center comes out clean, about 35 to 40 minutes. Lay a sheet of foil over loaves after the first 15 minutes to prevent over-browning. Cool bread in pans on a wire rack for 10 minutes, then remove bread from pans and cool completely on the wire rack.

| Nutrients Per Serving | |
|-----------------------|---------------|
| 1/3 of mini loaf | % Daily Value |
| Calories (kcal) | 240 |
| Protein (g) | 3 |
| Fat (g) | 11 17 |
| Saturated Fat (g) | 1 5 |
| Carbohydrates (g) | 35 12 |
| Fibre (g) | 2 8 |
| Sodium (mg) | 172 7 |
| Potassium (mg) | 104 3 |
| Folate (mcg) | 11 5 |
| Calcium (mg) | 38 3 |
| Iron (mg) | 1 6 |
| Thiamin (mg) | 0.025 2 |
| Riboflavin (mg) | 0.06 4 |
| Niacin (ne) | 1 4 |
| Zinc (mg) | 0.5 6 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 55 TO 60 MIN.

Blueberry-Lemon Quick Bread

Makes 12 servings

- ¾ cup (175 ml) yellow pea flour*
- ¾ cup (175 ml) brown rice flour blend* (see page 16)
- ¾ cup (175 ml) sugar, plus 1 tbsp (15 ml) for topping
- 1 tbsp (15 ml) baking powder
- 1 tsp (5 ml) xanthan gum
- ¾ tsp (4 ml) table salt
- 1 cup (250 ml) milk of choice, room temperature
- ½ cup (125 ml) canola oil
- 1 tsp (5 ml) vanilla
- 2 large eggs, room temperature
- 3 tsp lemon zest, divided
- 1 cup (250 ml) fresh or frozen blueberries
- ½ cup (125 ml) sliced almonds, plus 1 tbsp for topping (optional)

- 1 Place rack in middle of oven. Preheat oven to 375°F (190°C). Generously grease an 8x4-inch nonstick metal loaf pan.
- 2 In a medium mixing bowl, whisk together the yellow pea flour, rice flour blend, ¾ cup sugar, baking powder, xanthan gum and salt until well blended. With electric mixer on low speed, beat in milk, oil, vanilla, eggs and 2 tsp (10 ml) zest until batter thickens slightly, about 30 seconds. Mix in blueberries and almonds (if desired).
- 3 Spread batter evenly in pan. Combine remaining sugar, lemon zest and almonds (if desired) and press on top of bread. Let stand for 10 minutes.
- 4 Bake until loaf browns and a toothpick inserted into the center comes out clean, about 55 to 60 minutes. Lay a sheet of foil over loaf after first 20 to 30 minutes to prevent over-browning. Cool bread in pan on wire rack for 10 minutes, then remove bread from pan and cool completely on the wire rack.

| Nutrients Per Serving | | |
|-----------------------|-------|---------------|
| 1 slice (72g) | | % Daily Value |
| Calories (kcal) | 234 | |
| Protein (g) | 4 | |
| Fat (g) | 11 | 17 |
| Saturated Fat (g) | 1 | 5 |
| Carbohydrates (g) | 31 | 10 |
| Fibre (g) | 2 | 8 |
| Sodium (mg) | 259 | 11 |
| Potassium (mg) | 68 | 2 |
| Folate (mcg) | 9 | 4 |
| Calcium (mg) | 72 | 7 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.025 | 2 |
| Riboflavin (mg) | 0.1 | 6 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 1 | 11 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 55 TO 60 MIN.

Pumpkin Bread

Makes 12 servings

- ¾ cup (175 ml) chickpea (garbanzo) flour*
- ¾ cup (175 ml) brown rice flour* blend (see page 16)
- ¾ cup (175 ml) sugar
- 2 tsp (10 ml) baking powder
- 2 tsp (10 ml) pumpkin pie spice
- 1 tsp (5 ml) xanthan gum
- ¾ tsp (4 ml) table salt
- 2 large eggs, room temperature
- 1 cup (250 ml) milk of choice, room temperature
- ¾ cup (175 ml) canned pumpkin purée (not pumpkin pie filling)
- ½ cup (125 ml) canola oil
- 1 tsp (5 ml) vanilla extract
- ½ cup (125 ml) chopped pecans (optional)

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Generously grease 8x4-inch loaf pan.
- 2 In a medium mixing bowl, whisk together the chickpea flour, rice flour blend, sugar, baking powder, pumpkin pie spice, xanthan gum and salt until well blended.
- 3 Add eggs, milk, pumpkin, oil and vanilla and beat with an electric mixer on low speed until blended. Increase speed to medium and beat another 30 seconds. Stir in nuts (if desired). Spread batter evenly in pan and let stand for 10 minutes.
- 4 Bake until loaf is browned and a toothpick inserted into the center comes out clean, about 55 to 60 minutes. Lay a sheet of foil over loaf after first 20 to 30 minutes to prevent over-browning. Cool in pan on a wire rack for 10 minutes, then remove bread from pan and cool completely on the wire rack.

| Nutrients Per Serving | | |
|-----------------------|------|---------------|
| 1 slice | | % Daily Value |
| Calories (kcal) | 203 | |
| Protein (g) | 3 | |
| Fat (g) | 11 | 17 |
| Saturated Fat (g) | 1 | 6 |
| Carbohydrates (g) | 23 | 7 |
| Fibre (g) | 2 | 6 |
| Sodium (mg) | 232 | 10 |
| Potassium (mg) | 136 | 4 |
| Folate (mcg) | 38 | 17 |
| Calcium (mg) | 61 | 6 |
| Iron (mg) | 1 | 5 |
| Thiamin (mg) | 0.04 | 3 |
| Riboflavin (mg) | 0.1 | 6 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.4 | 4 |

*Refer to pages 14-15 on how to correctly measure flour.

BARS & CRISPS



PREPARATION TIME: 10 MIN. / BAKING TIME: 30 TO 35 MIN.

Chocolate Brownies



Makes 16 servings

- ½ cup (125 ml/1 stick) unsalted butter or buttery spread
- ¾ cup (175 ml/about 6 oz) bittersweet chocolate chips
- 1¼ cups (300 ml) sugar
- 3 large eggs, room temperature
- ½ cup (125 ml) black bean flour*
- ¼ cup (50 ml) cocoa
- ½ tsp (2 ml) xanthan gum
- ½ tsp (2 ml) table salt
- ¼ cup (50 ml) chopped walnuts or pecans (optional)

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Line a 9x9-inch square nonstick metal baking pan with parchment paper, leaving a 2-inch overhang on all sides.
- 2 In a microwave-safe mixing bowl, heat the butter and chocolate chips on low power until the chips are melted. Stir until blended, then beat in the sugar with an electric mixer on low speed. Beat in the eggs, one at a time, until well blended.
- 3 In a small bowl, whisk together the bean flour, cocoa, xanthan gum and salt until well blended and then gradually beat it into the chocolate mixture on medium-low speed until no flour is visible. Stir in the nuts (if desired). Spread the batter in the pan with a wet spatula. This batter is very thick.
- 4 Bake until the brownies feel firm to the touch, about 30 to 35 minutes. Do not over-bake. Cool the brownies in the pan on a wire rack for 10 minutes. Use the parchment overhang to transfer the brownies from the pan to the wire rack to finish cooling. Remove the parchment and cut into 16 squares.

Nutrients Per Serving

| 1 piece (50g) | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 166 | |
| Protein (g) | 3 | |
| Fat (g) | 10 | 15 |
| Saturated Fat (g) | 6 | 29 |
| Carbohydrates (g) | 19 | 6 |
| Fibre (g) | 2 | 8 |
| Sodium (mg) | 62 | 3 |
| Potassium (mg) | 130 | 4 |
| Folate (mcg) | 18 | 8 |
| Calcium (mg) | 17 | 2 |
| Iron (mg) | 1 | 6 |
| Thiamin (mg) | 0.04 | 3 |
| Riboflavin (mg) | 0.56 | 4 |
| Niacin (ne) | 0.84 | 4 |
| Zinc (mg) | 0.5 | 5 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 20 TO 25 MIN.

Oatmeal-Berry Bars



Makes 16 squares

- 1 cup (250 ml) white bean flour*
- 1 cup (250 ml) pure uncontaminated rolled oats**
- ½ cup (125 ml) packed dark brown sugar
- 1½ tsp (7 ml) xanthan gum
- ¾ tsp (4 ml) cinnamon
- ¼ tsp (1 ml) ground allspice
- ¼ tsp (1 ml) table salt
- ½ cup (125 ml/1 stick) unsalted butter or buttery spread, melted
- 2 tsp (10 ml) pure vanilla extract, divided
- ⅓ cup (150 ml) berry preserves or berry jam

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Line an 8-inch square nonstick pan with foil that extends over the edges to make handles for easy removal. Grease the foil.
- 2 In a medium mixing bowl, whisk together the white bean flour, oats, sugar, xanthan gum, cinnamon, allspice and salt until thoroughly blended. Add the melted butter and 1 tsp (5 ml) of the vanilla and mix with a spatula until crumbly. Press 1 cup (250 ml) of this mixture firmly and evenly on the bottom of the pan.
- 3 Mix the remaining tsp of vanilla with the preserves and spread evenly on top. Sprinkle the remaining oat mixture over the preserves and pat firmly to make an even crust.
- 4 Bake 20 to 25 minutes or until the top is lightly browned. Cool bars in pan for 10 minutes on a wire rack. Use the foil handles to lift the bars onto a cutting board. Cool completely before cutting.

Nutrients Per Serving

| 1 square | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 194 | |
| Protein (g) | 4 | |
| Fat (g) | 7 | 11 |
| Saturated Fat (g) | 4 | 20 |
| Carbohydrates (g) | 29 | 10 |
| Fibre (g) | 3 | 12 |
| Sodium (mg) | 58 | 2 |
| Potassium (mg) | 217 | 6 |
| Folate (mcg) | 28 | 13 |
| Calcium (mg) | 41 | 4 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.13 | 10 |
| Riboflavin (mg) | 0.04 | 2 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.7 | 8 |

**If you have celiac disease or gluten sensitivity check with your physician about eating pure, uncontaminated oats.

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 15 MIN. / BAKING TIME: 40 TO 45 MIN.

Apple Crisp



Makes 6 servings

FRUIT

- 5 large Granny Smith apples
- Zest and juice of 1 lemon
- 2 tbsp (30 ml) sugar
- 1 tsp (5 ml) vanilla extract

TOPPING

- ½ cup (125 ml) chickpea (garbanzo) flour*
- 3 tbsp (45 ml) packed brown sugar

- 3 tbsp (45 ml) granulated sugar
- ¼ cup (50 ml) chopped walnuts (optional)
- ½ tsp (2 ml) cinnamon
- ¼ tsp (1 ml) ground nutmeg
- ⅛ tsp (dash) ground cloves
- ⅛ tsp (dash) table salt
- 6 tbsp (90 ml) unsalted butter or buttery spread
- 1 cup (250 ml) vanilla ice cream (optional)

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Coat an 8x8-inch (glass or ceramic) baking dish with cooking spray.
- 2 Peel, core and thinly slice the apples. In a large bowl, toss the apples with the lemon zest and juice, sugar and vanilla. Place in the baking dish.
- 3 In the same bowl, whisk the chickpea flour, brown sugar, granulated sugar, walnuts (if desired), cinnamon, nutmeg, cloves and salt with a whisk until blended. Cut in the butter with a fork until the mixture forms small clumps and sprinkle evenly over the apples.
- 4 Bake 40 to 45 minutes or until the topping is crisp and browned. Serve warm, with vanilla ice cream.

Nutrients Per Serving

| | 1/6 of pan | % Daily Value |
|-------------------|------------|---------------|
| Calories (kcal) | 247 | |
| Protein (g) | 2 | |
| Fat (g) | 12 | 18 |
| Saturated Fat (g) | 7 | 35 |
| Carbohydrates (g) | 30 | 10 |
| Fibre (g) | 3 | 12 |
| Sodium (mg) | 54 | 2 |
| Potassium (mg) | 209 | 6 |
| Folate (mcg) | 25 | 11 |
| Calcium (mg) | 22 | 2 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.08 | 6 |
| Riboflavin (mg) | 0.05 | 3 |
| Niacin (ne) | 1 | 3 |
| Zinc (mg) | 0.33 | 4 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 25 TO 30 MIN.

Applesauce Spice Layer Cake



Makes 12 servings

- 2 cups (500 ml) brown rice flour blend* (see page 16)
- 1 cup (250 ml) packed brown sugar
- 1 tsp (5 ml) baking soda
- 1 tsp (5 ml) xanthan gum
- 1 tsp (5 ml) ground cinnamon
- ¼ tsp (1 ml) ground allspice
- ¼ tsp (1 ml) ground nutmeg
- ⅛ tsp (dash) ground cloves
- ¾ tsp (4 ml) table salt

- 1 cup (250 ml) lentil purée (see page 16)
- 2 large eggs, at room temperature
- 1 cup (250 ml) unsweetened applesauce
- ½ cup (125 ml) canola oil
- ¼ cup (50 ml) molasses (not blackstrap)
- 1 tsp (5 ml) vanilla
- Vanilla frosting (optional)

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Generously grease two 8-inch round nonstick metal pans. Line each with parchment paper or wax paper and grease again.
- 2 In medium mixing bowl, whisk together flour blend, brown sugar, baking soda, xanthan gum, cinnamon, allspice, nutmeg, cloves, and salt. Add lentil purée and eggs and beat with electric mixer on low speed until blended. Add applesauce, oil, molasses, and vanilla and beat until thoroughly blended. Spread batter evenly in pans.
- 3 Bake 25 to 30 minutes or until toothpick inserted into center of cakes comes out clean. Cool cakes in pans 10 minutes on wire rack. Remove cakes from pans with thin metal spatula, discard parchment paper, and cool completely on wire rack.
- 4 Decorate with vanilla frosting if desired. Cut and serve. Refrigerate leftovers.

Nutrients Per Serving

| | 1 slice | % Daily Value |
|-------------------|---------|---------------|
| Calories (kcal) | 327 | |
| Protein (g) | 4 | |
| Fat (g) | 11 | 17 |
| Saturated Fat (g) | 1 | 5 |
| Carbohydrates (g) | 55 | 18 |
| Fibre (g) | 3 | 12 |
| Sodium (mg) | 243 | 10 |
| Potassium (mg) | 317 | 9 |
| Folate (mcg) | 47 | 21 |
| Calcium (mg) | 45 | 4 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0 | 0 |
| Riboflavin (mg) | 0 | 0 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 1 | 11 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 25 TO 30 MIN.

Chocolate Cake



Makes 8 servings

- 1 cup (250 ml) brown rice flour blend* (see page 16)
- ¾ cup (175 ml) sugar
- ½ cup (75 ml) cocoa
- ½ tsp (2 ml) baking soda
- ½ tsp (2 ml) xanthan gum
- ¼ tsp (1 ml) table salt
- ½ cup (125 ml) black bean purée, at room temperature (see page 16)
- 1 large egg, room temperature
- ½ cup (125 ml) hot water (120°F/50°C)
- ¼ cup (50 ml) canola oil
- ½ tbsp (7 ml) apple cider vinegar
- ½ tbsp (7 ml) vanilla extract
- Powdered sugar for dusting

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Generously grease an 8-inch round nonstick metal pan. Line with parchment paper.
- 2 In a medium mixing bowl, whisk together the flour blend, sugar, cocoa, baking soda, xanthan gum and salt. Add the black bean purée and egg and beat with an electric mixer on low speed until blended. Add the hot water, oil, vinegar and vanilla and beat until thoroughly blended. Spread the batter evenly in the pan.
- 3 Bake 25 to 30 minutes or until a toothpick inserted into the center of the cake comes out clean. Cool in the pan for 10 minutes on a wire rack. Remove cake from pan with a thin metal spatula, discard parchment paper and cool completely on the wire rack. Dust the tops with powdered sugar, cut each cake into 6 slices and serve.

Nutrients Per Serving

| 1 slice (65g) | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 251 | |
| Protein (g) | 3 | |
| Fat (g) | 8 | 12 |
| Saturated Fat (g) | 1 | 5 |
| Carbohydrates (g) | 42 | 14 |
| Fibre (g) | 2 | 8 |
| Sodium (mg) | 175 | 7 |
| Potassium (mg) | 106 | 3 |
| Folate (mcg) | 27 | 12 |
| Calcium (mg) | 11 | 1 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.04 | 3 |
| Riboflavin (mg) | 0.05 | 3 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.5 | 6 |

*Refer to pages 14-15 on how to correctly measure flour.



PREPARATION TIME: 10 MIN. / BAKING TIME: 20 TO 35 MIN.

Gingerbread Cupcakes



Makes 12 cupcakes

- 1 cup (250 ml) brown rice flour blend* (see page 16)
- 1 tsp (5 ml) baking soda
- 2 tsp (10 ml) ground ginger
- 1 tsp (5 ml) cinnamon
- ½ tsp (2 ml) ground cloves
- 1 tsp (5 ml) xanthan gum
- ½ tsp (2 ml) table salt
- 1 cup (250 ml) lentil purée (see page 16)
- 2 large eggs, room temperature
- ⅔ cup (150 ml) packed brown sugar
- ⅓ cup (75 ml) canola oil
- ⅓ cup (75 ml) molasses (not blackstrap)
- 1 tsp (5 ml) vanilla extract
- 1 tsp (5 ml) apple cider vinegar

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Generously grease standard 12- cup nonstick muffin pan or line with paper liners.
- 2 In a medium mixing bowl, whisk together rice flour blend, baking soda, ginger, cinnamon, cloves, xanthan gum and salt until well blended. Add the lentil purée, eggs, brown sugar, oil, molasses, vanilla and vinegar and beat with an electric mixer on low speed until blended. Divide batter evenly in muffin pan.
- 3 Bake until toothpick inserted into center of cupcakes comes out clean, about 20 to 25 minutes. Cool cupcakes in pan 10 minutes on wire rack. Remove from pan and cool completely on wire rack.

Nutrients Per Serving

| 1 cupcake | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 224 | |
| Protein (g) | 3 | |
| Fat (g) | 8 | 12 |
| Saturated Fat (g) | 1 | 4 |
| Carbohydrates (g) | 37 | 12 |
| Fibre (g) | 2 | 8 |
| Sodium (mg) | 199 | 8 |
| Potassium (mg) | 303 | 9 |
| Folate (mcg) | 46 | 21 |
| Calcium (mg) | 43 | 4 |
| Iron (mg) | 2 | 13 |
| Thiamin (mg) | 0.04 | 3 |
| Riboflavin (mg) | 0.06 | 4 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.5 | 6 |

*Refer to pages 14-15 on how to correctly measure flour.

COOKIES



PREPARATION TIME: 10 MIN. / BAKING TIME: 10 TO 12 MIN.

Peanut Butter Cookies



Makes 32 small cookies

- 1 cup (250 ml) crunchy natural peanut butter
- 1 cup (250 ml) sugar
- 2 large eggs
- 1 tsp (5 ml) vanilla extract
- ½ cup (125 ml) chickpea (garbanzo) flour*
- ¼ tsp (1 ml) xanthan gum
- ⅛ tsp (dash) table salt

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Line a 13x9-inch nonstick baking sheet with parchment paper.
- 2 In a medium bowl, beat the peanut butter, sugar, eggs and vanilla with an electric mixer on low speed until well blended. Add the chickpea flour, xanthan gum and salt and beat on low speed until well blended. Shape half of the dough into twelve 1 inch balls and place 2 inches apart on the baking sheet. Flatten each ball to ½-inch thick by making criss-cross marks with the tines of a fork.
- 3 Bake until the cookies are lightly browned and firm, about 12 to 15 minutes. Cool the cookies on the pan on a wire rack for 10 minutes. Transfer the cookies to the wire rack to cool completely. Repeat with remaining dough.

Nutrients Per Serving

| 1 cookie (15g) | | % Daily Value |
|-------------------|-------|---------------|
| Calories (kcal) | 83 | |
| Protein (g) | 3 | |
| Fat (g) | 4 | 6 |
| Saturated Fat (g) | 1 | 5 |
| Carbohydrates (g) | 8 | 3 |
| Fibre (g) | 1 | 4 |
| Sodium (mg) | 14 | 1 |
| Potassium (mg) | 19 | 1 |
| Folate (mcg) | 18 | 8 |
| Calcium (mg) | 3 | 0 |
| Iron (mg) | 0 | 0 |
| Thiamin (mg) | 0.05 | 4 |
| Riboflavin (mg) | 0.015 | 1 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.07 | 1 |

*Refer to pages 14-15 on how to correctly measure flour.

PREPARATION TIME: 10 MIN. / BAKING TIME: 15 TO 20 MIN.

Oatmeal-Coconut Raisin Cookies



Makes 12 cookies

- ½ cup (125 ml/1 stick) unsalted butter, room temperature
- 1 cup (250 ml) packed brown sugar
- ¾ cup (175 ml) white bean purée (see page 16)
- 1 large egg, room temperature
- 1 tsp (5 ml) vanilla
- 2 cups (500 ml) pure, uncontaminated quick-cooking oats**
- 1 cup (250 ml) shredded coconut, sweetened
- 1 tsp (5 ml) cinnamon
- ½ tsp (2 ml) baking soda
- ½ tsp (2 ml) table salt
- ½ tsp (2 ml) xanthan gum
- ½ cup (125 ml) golden raisins

- 1 Place rack in middle of oven. Preheat oven to 350°F (180°C). Grease with shortening or line a 15x10-inch baking sheet (not nonstick) with parchment paper.
- 2 In a medium bowl, beat butter, brown sugar and bean purée with electric mixer on low speed until thoroughly blended. Add egg and vanilla and beat until smooth.
- 3 In a separate bowl, whisk together oats, coconut, cinnamon, baking soda, salt and xanthan gum until well blended. With mixer on low speed, gradually beat oat mixture into wet ingredients until thoroughly blended. Stir in raisins. With a metal ice-cream scoop or 2-tbsp-measure, shape dough into smooth balls with wet hands and place on baking sheet. Flatten cookies slightly with spatula.
- 4 Bake until lightly browned and firm, about 15 to 20 minutes. Cool cookies on baking sheet on a wire rack for 10 minutes. Transfer cookies to wire rack to finish cooling.

Nutrients Per Serving

| 1 cookie | | % Daily Value |
|-------------------|------|---------------|
| Calories (kcal) | 335 | |
| Protein (g) | 6 | |
| Fat (g) | 15 | 23 |
| Saturated Fat (g) | 10 | 50 |
| Carbohydrates (g) | 47 | 16 |
| Fibre (g) | 5 | 20 |
| Sodium (mg) | 161 | 7 |
| Potassium (mg) | 316 | 9 |
| Folate (mcg) | 30 | 14 |
| Calcium (mg) | 44 | 4 |
| Iron (mg) | 2 | 14 |
| Thiamin (mg) | 0.19 | 15 |
| Riboflavin (mg) | 0.08 | 5 |
| Niacin (ne) | 1.5 | 7 |
| Zinc (mg) | 1.15 | 11 |

**If you have celiac disease or gluten sensitivity check with your physician about eating pure, uncontaminated oats.



PREPARATION TIME: 10 MIN. / COOKING TIME: 12 MIN.

Speckled Chocolate Chip Cookies



Makes 48 cookies (360g)

- 1 cup (250 ml) black bean flour or whole bean flour*
- ½ tsp (2 ml) baking soda
- Dash salt
- ½ cup (125 ml) unsalted butter or buttery spread
- ½ cup (125 ml) sugar
- ¼ cup (50 ml) packed brown sugar
- 1 egg
- 1 tsp (5 ml) vanilla extract
- 1 cup (250 ml) semi-sweet chocolate chips

- 1 Preheat oven to 350°F (180°C).
- 2 In small bowl, stir together bean flour, baking soda and salt.
- 3 In mixing bowl, cream together margarine and both sugars. Beat in egg and vanilla until light and fluffy.
- 4 Stir in dry ingredients until blended. Fold in chocolate chips.
- 5 Drop by small teaspoonfuls 2 inches (5 cm) apart onto nonstick baking sheets. Bake for 10-12 minutes or until golden brown.

*Adapted from Currie, V. & Spicer, K. (1993).
Full of Beans. Mighton House page 170.*

| Nutrients Per Serving | | |
|-----------------------|------|---------------|
| 2 cookies (15 g) | | % Daily Value |
| Calories (kcal) | 131 | |
| Protein (g) | 2 | |
| Fat (g) | 7 | 11 |
| Saturated Fat (g) | 2 | 10 |
| Carbohydrates (g) | 18 | 5 |
| Fibre (g) | 1 | 5 |
| Sodium (mg) | 46 | 2 |
| Potassium (mg) | 141 | 4 |
| Folate (mcg) | 29 | 13 |
| Calcium (mg) | 17 | 2 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.06 | 5 |
| Riboflavin (mg) | 0.03 | 2 |
| Niacin (ne) | 0.57 | 3 |
| Zinc (mg) | 0.37 | 4 |

The dough will seem sticky when using bean flours. Leave enough room in between cookies for them to spread out as they bake.

PREPARATION TIME: 10 MIN. / BAKING TIME: 40 MIN.

Anise-Apricot Biscotti



Makes 16 biscotti

- 1½ cups (375 ml) white bean flour*
- 1 cup (250 ml) sugar
- 1 tbsp (15 ml) anise seed (optional)
- 1½ tsp (7 ml) xanthan gum
- 1 tsp (5 ml) baking powder
- ½ tsp (2 ml) table salt
- 2 large eggs, at room temperature
- ¼ cup (50 ml) unsalted butter or buttery spread, at room temperature
- Zest of 1 large orange
- 1 tsp (5 ml) anise flavoured extract
- ½ tsp (2 ml) vanilla extract
- ½ tsp (2 ml) dried apricots, finely chopped

- 1 Place a rack in the middle of the oven. Preheat the oven to 350°F (180°C). Line a 13 x 9-inch nonstick baking sheet with parchment paper.
- 2 In a food processor, combine the white bean flour, sugar, anise seed (if using), xanthan gum, baking powder and salt. Pulse a few times until the ingredients are thoroughly blended.
- 3 Add the eggs, butter, orange zest, anise extract and vanilla and pulse on and off about 20 times to moisten the dough. Process until the dough forms a ball. Break the dough into big clumps, add the dried apricots and process until the dough forms a ball again.
- 4 Remove the dough from the food processor and knead with your hands until smooth. On the baking sheet, shape dough into a ball, divide the ball in half and shape each half into a log, 12 inches long, 2 inches wide and ½-inch thick. Wet your hands with water if the dough is sticky or shape the log with a wet spatula.
- 5 Bake until the dough cracks on top and begins to brown at the edges, about 20 minutes. Remove the baking sheet from the oven and cool the logs 10 minutes. Reduce the oven temperature to 325°F (160°C) degrees but leave the oven on.
- 6 With a serrated knife or electric knife, cut each log diagonally into ¾-inch thick slices. Arrange the slices, cut side down and ½-inch apart, on the baking sheet and return the sheet to the oven.
- 7 Bake 20 minutes, turning the cookies over halfway during baking. Turn off the oven, leaving the biscotti to dry out even further for 30 minutes. Transfer the cookies to a wire rack to cool completely.

| Nutrients Per Serving | | |
|-----------------------|------|---------------|
| 1 biscotti | | % Daily Value |
| Calories (kcal) | 148 | |
| Protein (g) | 4 | |
| Fat (g) | 4 | 6 |
| Saturated Fat (g) | 2 | 10 |
| Carbohydrates (g) | 24 | 8 |
| Fibre (g) | 3 | 12 |
| Sodium (mg) | 103 | 4 |
| Potassium (mg) | 258 | 7 |
| Folate (mcg) | 34 | 15 |
| Calcium (mg) | 53 | 5 |
| Iron (mg) | 1 | 7 |
| Thiamin (mg) | 0.08 | 6 |
| Riboflavin (mg) | 0.05 | 3 |
| Niacin (ne) | 1 | 4 |
| Zinc (mg) | 0.45 | 5 |

*Refer to pages 14-15 on how to correctly measure flour.

RESOURCES

PULSES

- To learn more about the nutrient composition of pulses visit www.pulsecanada.com
- Additional copies of this resource book can be ordered from Pulse Canada, 1212-220 Portage Avenue, Winnipeg Manitoba, Canada R3C 0A5
- This resource book can be downloaded at www.pulsecanada.com

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CELIAC DISEASE & THE GLUTEN-FREE DIET

- Canadian Celiac Association www.celiac.ca
- Celiac Disease Foundation www.celiac.org
- Celiac Sprue Association www.csaceliacs.org
- Gluten Intolerance Group www.gluten.net
- National Foundation for Celiac Awareness www.celiaccentral.org
- National Institutes of Health Celiac Disease Awareness Campaign www.celiac.nih.gov



Pulse Canada is the national association representing pulse growers, processors and traders. Direction and funding is provided by Alberta Pulse Growers Commission, Saskatchewan Pulse Growers, Manitoba Pulse Growers Association, the Ontario Bean Producers Marketing Board, Ontario Coloured Bean Growers and the pulse processors and exporters that are members of the Canadian Special Crops Association (CSCA). Pulse Canada provides its members with a single, unified voice on national and international issues affecting the pulse industry. Areas of focus include market access and transportation, as well as positioning pulses as a cornerstone ingredient for healthier foods and a more sustainable environment. Pulse Canada's members include:



The Ontario Coloured Bean Growers Association represents 450 producers in Ontario who grow a variety of coloured beans including Kidney, Cranberry, Blacks, Otebos, Pintos and Adzuki

Beans. Our mandate includes product promotion, consumer education, agronomy and production research and is funded by a non-refundable check-off / tonne of production. Formed in 1986, the association is based in Mitchell, Ontario and is very active in lobbying the provincial and federal governments for programs to benefit our producers.

To learn more about the Ontario Coloured Bean Growers Association, visit www.ontariobeans.on.ca



The Ontario Bean Producers' Marketing Board (OBPMB) is a not for profit organization that represents the interests of approximately 1,000 farmers in Ontario that grow White Pea Beans (commonly found on store shelves as baked beans or beans in tomato sauce). Adapted

varieties of White Pea Beans are grown throughout Ontario from the deep southwest – Harrow/Windsor area to the opposite end of the province in the Ottawa valley. Board operations are funded through a grower-licensing fee that is assessed against production. Revenues are allocated to prioritized strategic areas such as research, communications, promotions and marketing.

To learn more about OBPMB, visit www.ontariobeans.on.ca



The Manitoba Pulse Growers Association (MPGA) represents 3,000 farmers in Manitoba who grow edible beans, peas, lentils, chickpeas, faba beans and soybeans. The organization is funded by a 0.5% check-off levied against the sales of these crops. MPGA's mission is to provide Manitoba pulse grower members with production knowledge and market development, and to improve members' profitability from pulses through focused research and development, market development, advocacy on behalf of members with government and industry groups and communication to members.

To learn more about MPGA, visit www.manitobapulse.ca



Saskatchewan Pulse Growers represents over 18,000 pulse crop producers in Saskatchewan.

Accountable to growers and funded through a mandatory check-off, SPG has a producer-elected board of directors comprised of seven pulse growers. With a legislated mandate to build a prosperous pulse industry in Saskatchewan, SPG invests in research and market development and promotes sustainable innovation, growth and success through leadership, collaboration and support. Today, Saskatchewan is the heart of Canada's pulse industry. We produce 99% of the Canadian lentil crop, 65% of the Canadian pea crop, and 99% of the Canadian chickpea crop and there are over 100 special crop processors in Saskatchewan.

To learn more about Saskatchewan Pulse Growers, visit www.saskpulse.com



The Alberta Pulse Growers Commission (APG) represents 4,700 Alberta farmers who grow peas, beans, chickpeas, lentils and faba beans. It is a producer-driven, not-for-profit, organization funded by a refundable levy deducted at the point of pulse crop sale. Our mission is "To provide leadership, increasing the competitiveness, profitability, and sustainability of pulse production as well as promoting health and environmental benefits of pulses." The Alberta pulse industry has grown from its inception, in the early 1980s, to one where primary production contributed \$137 million to the Alberta economy in 2010.

To learn more about APG, visit www.pulse.ab.ca



The Canadian Special Crops Association (CSCA) is a national trade association established in

1987. It represents companies involved in the merchandising of Canadian pulse and special crops, including bean, chickpea, lentil, pea, canary seed, buckwheat, sunflower seed and mustard seed. The CSCA currently has more than 110 members, ranging from large multi national organizations to single-plant processors. Together they represent more than 85% of the pulse and special crops produced in Canada.

To learn more about CSCA, visit www.specialcrops.mb.ca

To learn more about Pulse Canada, visit our website at www.pulsecanada.com

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