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# Cereals anytime



In every country in the world, cereals make up a large portion of the diet, as a source of energy and protein. Cereal grains remain as a staple food because they can be grown in many different climates and soils.

In Canada, wheat, oats and barley are the main cereal crops produced for human consumption and for animal feed; other cereals grown are corn, rye, buckwheat and triticale. Most of the wheat, oats, barley and rye are produced in the Prairie Provinces and nearly all of the grain corn is harvested in Eastern Canada. Buckwheat is grown mainly in Manitoba and the eastern provinces.

These cereal grains are processed into various kinds of flour and meal, breakfast cereals, bakery products and pastas. Hard spring wheat is used for the manufacture of flour, bread and pastry products and some is processed into breakfast cereals. Durum wheat is used mainly in the production of pastas (macaroni, noodles). Oats is processed mainly in the form of rolled oats, oatmeal and breakfast cereals. Barley is used as pot and pearl barley for soups, and ground or partly ground in flour and breakfast cereals. Malt from sprouted barley is used for making beer, ale and some food products. Corn produced in Canada is used largely for animal feed but about one-third is made into starch, syrup, breakfast cereals and alcoholic beverages. Rye is ground into flour mostly for the manufacture of rye bread, and buckwheat is processed into breakfast cereals and flour, much of which is used in pancakes. Triticale

is processed mainly in the form of flakes and flour that is used in baked products.

All grains have food value and structure similar to wheat:

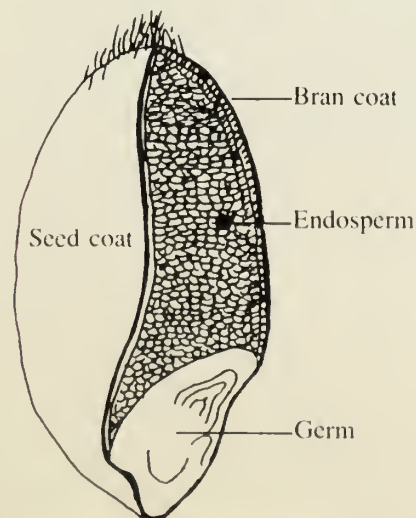
**SEED COAT** Removed in process of milling for human food.

**BRAN LAYERS** Contain considerable amounts of minerals, vitamins and some roughage. Used along with other parts of kernel when making whole grain breakfast cereals and flour.

**ENDOSPERM** Contains mostly starch, with some protein. Used in making all breakfast cereals and flours.

**GERM** Rich in B vitamins. Also contains some vitamin E and the mineral iron. Used in making whole grain breakfast cereals and flour.

Cereals make an important contribution to the diet by furnishing protein, carbohydrate, iron, phosphorus and the B vitamins – thiamine, riboflavin and niacin. Because whole grain cereals include the entire kernel of grain (see diagram) they are especially valuable for these nutrients, especially the B vitamins. Cereal protein is not a complete protein but may be supplemented with milk, eggs, cheese, meat or legumes.



Cutaway view of a wheat kernel

Canada's Food Guide recommends that we eat three to five servings of bread and cereals every day.

Most ready-to-eat cereals and some cereals requiring cooking are refined and nutrients have been added to replace those lost in processing. Some cereals enriched with thiamine, riboflavin, niacin and iron may provide as much or more of these nutrients than the whole grain ones. The amounts of vitamins and minerals in enriched cereals are listed on the label. Sweeteners and flavorings must also be listed.

## BUYING AND STORING

The best way to compare nutrient and dollar values of cereals is to read the labels on the packages. They provide information on ingredients, food value, cooking and serving directions, mass and cost.

Whole grain cereals, available in quick, instant, regular and ready-to-serve forms, usually cost less per serving than ready-to-eat cereals. Cereals packed in individual servings are usually the most expensive; those that need to be cooked are usually less expensive. It is false economy to purchase larger amounts of cereals than can be conveniently stored. After packages are opened, ready-to-eat cereals lose crispness and become stale if air gets to them.

Both whole grain and refined cereals are available in various forms. They may require some cooking, or be ready-to-eat, or only need water added.

Ready-to-eat cereals have undergone one of three main types of processing:

**PUFFING** The cereal grain is dried, then forced under pressure into a chamber where, as soon as the pressure is released, the cereal explodes into puffs (rice, corn, oat and wheat puffs).

**FLAKING** The cereal grain is cooked, rolled and dried to give flakes a crisp, curly, sometimes blistered texture (bran, corn, wheat, oat, triticale and rice flakes).

**SHREDDING** Thin shreds of cooked cereal grain are dried, cut and then toasted for crispness (shredded wheat or rice).

Of the cereals that require cooking, cracked wheat and rolled oats are whole grain cereals, but farina is a refined granular cereal. Most have been processed to reduce cooking time. Quick-cooking rolled oats, for example, are rolled thinner than regular rolled oats. Cooking instructions are usually on the package.

Store cereals at room temperature in airtight containers or packages to preserve freshness. Check packages regularly for insect infestation and discard any cereals affected.

## COOKING

Follow directions on the package. If there are none, or if the cereal is bought in bulk, use the following as a guide for cooking the regular type of breakfast cereals.

**DIRECT HEAT METHOD** Add cereal slowly to boiling salted water, in heavy pot, stirring constantly. When cereal begins to thicken, cover and cook on

low heat for time indicated below. Stir occasionally during cooking. For thinner cereals, add a little more boiling water.

**DOUBLE BOILER METHOD** Cook as above over direct heat until cereal begins to thicken. Cover and finish cooking over boiling water for time indicated in the table (stirring not required).

	Cereal (mL)	Water (mL)	Salt (mL)	Time		Yield (L)
				direct heat (min)	double boiler (h)	
Cracked wheat	250	1125	3	45	1 1/2	3.5
Farina*	125	750	3	30	1/2	2.0
Oatmeal (ground oats)	250	1000 cold**	5	30	1	3.5
Mixed grain cereals***	250	750	2	20	3/4	2.0
Rolled oats, regular	250	625 to 750	2	20	3/4	2.5

\* Cream of wheat, wheat hearts, wheatlets

\*\* As a precaution against the lumping of oatmeal, add the cereal to cold salted water. Bring to a boil, stirring constantly. Continue cooking as directed for other cereals.

\*\*\* Combination of three or more whole grain cereals such as rolled oats, flaxseed, bran, farina, rye, cornmeal, cracked wheat, corn, rice, barley.

You can substitute fruit juice or milk for part of the water in cooking cereal.

Try combining two or more cereals. Allow the time required for cereal with longest cooking period.

If desired, sweeten cereal with white or brown sugar, maple syrup or honey. Add extra flavor with a pat of butter, chopped fruits or nuts.

### BUCKWHEAT PANCAKES

250 mL buckwheat flour  
250 mL all-purpose flour  
25 mL sugar  
20 mL baking powder  
5 mL salt  
2 eggs  
375 mL milk  
50 mL oil

Mix together dry ingredients. Combine eggs, milk and oil. Add to dry ingredients and mix quickly until just combined. For each pancake, spread 50 mL of batter evenly on well-greased hot frypan. Cook until bubbles form on surface (2 to 3 min). Turn and brown other side (2 to 3 min more). 6 servings.

### BARLEY MUSHROOM BAKE

275 mL pearl barley (about 250 g)  
50 mL butter  
1 package (42 g) dry onion soup mix  
3 mL salt  
1 mL pepper  
1 mL savory  
850 mL water  
500 mL sliced mushrooms (about 250 g)

Cook barley in butter 10 min. Combine barley, soup mix, seasonings and water. Turn into greased baking dish. Cover and bake 1 h at 160°C. Stir in mushrooms. Cover and cook 1 h 15 min more. 6 servings.

### TOPPING FOR CASSEROLES

250 mL coarsely crushed cereal flakes  
25 mL melted butter  
2 mL dried herbs\*  
OR 5 mL grated Canadian cheese (Parmesan or cheddar)

Combine all ingredients. About 10 min before end of baking, sprinkle topping over casserole and bake until browned. Makes enough topping for a 1.5 to 3 L casserole.

\*Poultry seasoning for poultry and fish casseroles: tarragon, savory, basil, marjoram, oregano or parsley for meat and vegetable casseroles.

### STUFFED SQUASH

6 large zucchini OR  
3 small acorn squash  
15 mL melted butter  
(for acorn squash only)  
Salt  
125 mL chopped onion  
125 mL chopped celery  
75 mL butter  
375 mL coarsely crushed cereal flakes  
3 mL pepper  
2 mL thyme  
50 mL grated Parmesan cheese

Cut vegetables in half lengthwise and scoop out seeds. Brush acorn squash with melted butter. Season inside of each piece with salt. Sauté onion and celery in butter until onion is transparent. Add remaining ingredients except Parmesan cheese. Spoon about 50 mL stuffing into each zucchini half and 100 mL into each acorn squash half. Sprinkle Parmesan cheese on squash halves. Bake uncovered at 180°C until tender (30 min for zucchini and 60 min for acorn squash). 6 servings.

### PORK SCHNITZEL

700 g pork leg, center slice (cutlets) 5 mm thick  
50 mL all-purpose flour  
2 mL salt  
1 mL pepper  
1 mL cloves or sage  
1 egg  
50 mL water  
750 mL finely crushed rice cereal (rice krispies)  
50 mL oil

Cut pork in serving-size pieces. Pound cutlets to 3 mm thickness. Combine flour and seasonings. Mix together egg and water. Coat cutlets with flour mixture then dip into egg mixture. Coat with crushed cereal. Panfry in oil over low heat 3 min each side. Serve with lemon wedges, if desired. 6 servings.

### FRUIT CRISP (WITH CEREAL TOPPING)

1 L sliced fresh fruit (peaches, plums, pears, apples)  
75 mL sugar  
25 mL cornstarch  
75 mL butter  
30 mL flour  
125 mL brown sugar  
750 mL corn flakes

Combine fruit. Mix together sugar and cornstarch. Sprinkle over fruit and turn into baking dish. Melt butter. Combine brown sugar and flour, add to butter. Cook, stirring constantly over low heat 3 min. Add corn flakes, mixing quickly until coated with brown sugar mixture. Spread over fruit. Bake at 180°C until lightly browned (about 30 min). 6 servings.

**CANNED FRUIT CRISP** Use two 540 mL cans fruit. Drain fruit, reserving syrup. Combine cornstarch, 15 mL lemon juice and 50 mL syrup in place of 75 mL sugar and stir into fruit. Continue as fruit crisp.

### COTTAGE CHEESE SQUARES

375 mL rolled oats  
250 mL finely chopped walnuts  
3 eggs  
125 mL catsup  
500 mL cottage cheese  
5 mL salt  
125 mL unsweetened wheat germ  
15 mL oil  
250 mL chopped onion  
5 mL sage  
50 mL grated Parmesan cheese

Combine all ingredients except Parmesan cheese. Turn into greased 2 L (20 cm square) pan. Sprinkle with cheese. Bake 40 min at 180°C. Serve with gravy or cranberry sauce if desired. 6 servings.

### APRICOT OATMEAL SQUARES

Filling  
175 mL water  
125 mL brown sugar  
300 mL chopped dried apricots  
Bring water and brown sugar to boil. Add apricots and cook 10 min, stirring constantly. Remove from heat. Cool.

#### Base and topping

175 mL all-purpose flour  
325 mL rolled oats  
175 mL brown sugar  
150 mL butter  
Combine all ingredients except butter. Cut in butter until mixture resembles coarse bread crumbs. Lightly press half mixture in greased 2 L cake pan (20 cm square). Spread filling over base. Cover with remaining rolled oat mixture. Bake at 180°C until lightly browned (25 min). Makes 16 (5 cm) squares.

### RYE PASTRY (for 1 crust pie)

300 mL medium rye flour  
15 mL sugar  
2 mL baking powder  
2 mL salt  
75 mL shortening  
45 to 60 mL ice water

Combine dry ingredients. Cut in shortening until mixture resembles coarse crumbs. Sprinkle water, a little at a time over flour mixture, mixing lightly with a fork. Shape dough into firm ball. Roll out on lightly floured board. Place loosely in 23 cm pie plate. Prick sides and bottom of pastry with fork. Bake at 220°C until lightly browned (10 to 12 min). Makes one 23 cm pie crust.

### TRITICALE MUFFINS

250 mL sifted all-purpose flour  
15 mL baking powder  
2 mL salt  
50 mL brown sugar  
250 mL triticale flour  
1 beaten egg  
250 mL milk  
50 mL melted butter  
Sift together first four ingredients. Stir in triticale flour. Combine egg, milk and butter. Add to dry ingredients, stirring only enough to moisten. Fill greased muffin tins two-thirds full. Bake at 190°C until lightly browned (20 to 25 min). Makes 12 muffins.

### WHOLE WHEAT MUFFINS WITH WHEAT GERM

250 mL all-purpose flour  
25 mL baking powder  
2 mL salt  
125 mL brown sugar  
250 mL whole wheat flour  
125 mL wheat germ  
1 beaten egg  
300 mL milk  
50 mL melted butter  
Sift first four ingredients. Stir in whole wheat flour and wheat germ. Combine egg, milk and butter. Add to dry ingredients, stirring only enough to moisten. Fill greased muffin tins two-thirds full. Bake at 190°C until browned (20 to 25 minutes). Makes 12 medium muffins.

Use bran to line pans for quick breads and muffins.

### GOLDBLOCKS CASSEROLE

250 mL finely chopped onion  
25 mL butter  
750 mL cooked Red River cereal, oatmeal or Cream of wheat  
1 mL thyme  
Dash Cayenne pepper  
6 slices cooked bacon, crumbled  
3 slightly beaten eggs  
375 mL (150 g) grated old yellow cheddar cheese  
Sauté onion in butter until transparent. Combine cooked cereal with remaining ingredients; mix well. Pour into 6 individual greased baking dishes. Bake 30 min at 180°C. Let stand 10 min. 6 servings.

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