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Distribution of Food Components in Each Fraction of Wheat Grain

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Wheat grains were milled into 8 fractions ranging from the surface layer to the center of a grain with a modified machine used for polishing brewers' rice. The classified wheat flours were ground to the size of starch, and the moisture content in each fraction was about 12%. The ash, lipid, protein and dietary fiber contents decreased from the surface to the center, while sugar content increased. Potassium, sodium, magnesium, calcium and manganese, but not copper contents also decreased from the surface to the center. Large, medium and small granule starches were isolated from these classified wheat flours. From the surface to the center, the percentage of large granules decreased, small granules increased, and medium granules remained approximately constant. The ratio of water-soluble and NaCl-soluble proteins decreased from the surface to the center, whereas that of *n*-propanol-soluble and lactic acid-soluble proteins increased.

Keywords: [wheat grain](#), [classified wheat flour](#), [minerals](#), [starch](#), [protein](#)



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