# Sprouted Grain and Malt - for bread



Wheat sprouting after 1, 2, 3 and 4 days

Grains suitable for sprouting for bread are hull-less barley, hull-less wheat, and rye. De-hulled spelt, emmer and einkorn grain can also be sprouted, provided that the de-hulling process has been gentle enough not to damage the germ.

This easy small-scale method for sprouting grain requires a bowl large enough to be initially only approximately one third filled with grain and water, with a lid or plate to cover.

If molds appear during the sprouting, discard the grain and sprouts and start over with another batch of organic wheat and a clean bowl. Sprouts are ready to use in 3-4 days, at approximately 60°F (15°C).

Ingredients	Grams	Bakers per cent
Hull-less barley, hull-less wheat or rye grain	500	100
Water	250	50
Water	75	15
Total	825	165

Assuming initial moisture in grain is 10%, after sprouting it will be approximately 75%, and total weight of sprouts from 500 grams grain will be approximately 850 grams.

### Method

Add wheat grain and water (equal to 50% of the weight of grain) to a large bowl. Gently and completely toss the wheat grain with clean wet hands, or a soft spatula, so that the water is almost completely used up, to wet the grain. Repeat this tossing of the grain 2-3 times in each 24 hours; replace the bowl cover each time. Eventually there should be no free water in the bottom of the bowl, but the grain should be quite adequately moist. The tossing keeps the sprouts well aerated, and therefore alive. Only after there is no free water draining to the bottom of the bowl on standing, add the rest of the water (15% with respect to original grain weight).

Fresh sprouts are ready to use when the leaf shoot is almost the length of the grain. The roots will be half an inch (1-2 centimeters) in length by that time.

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## Using fresh wheat sprouts in place of malt flour for bread

Fresh sprouts can be used in bread, or when making or replenishing a sourdough starter as an alternative to enzyme-active malt flour. Before adding fresh sprouts to a bread dough, or using them to make a starter, they can be chopped coarsely by hand or they can be chopped to a paste in a food processor. Weight of sprouts to use = approximately 1.65 times "recipe dry weight of malt", and assume contributed amount of water in dough = 0.65 times "recipe dry weight of malt"

# To make a sweet porridge with fresh sprouts for a loaf based on 500 grams whole wheat flour, and 25 grams malt.

Ingredients	Amounts (500 g flour per loaf basis)	Bakers per cent
Whole wheat flour	50	10
Water	$200 - (0.65 \times 25) = 184$	$40 - (0.65 \times 5) = 36.75$
Fresh sprouts ground to a paste	42	5 x 1.65 = 8.25

[] In a saucepan, mix whole wheat flour and cold water to a smooth slurry. Heat to boiling while continuously stirring and continue cooking until uniformly thickened. Continue cooking for another minute.

[] When the porridge has cooled to less than 104°F (40°C) mix and beat in all the fresh sprout paste. Cover with a lid and set aside for 60 minutes at 86°F (30°C). *The mixture should thin somewhat and become distinctly sweet tasting*.

### Making enzyme-active malt (sprouted wheat flour)

Fresh sprouts can be dried to enzyme active malt in a food dehydrator set at warm room temperature, 95°F (35°C), so that the enzymes will not be heat-damaged.

First weigh one tray of sprouts. Dry until there is no further change in weight of this tray of sprouts. Drying to constant weight may take more than a day. When there is no further decrease in weight of this tray of sprouts, the sprouts will have been dried down to 5-9% moisture, in a dry climate. This method would need modification in a humid climate, such as the addition of a dehydrating material to the bottom tray of the food dehydrator.

Dried sprouts (enzyme-active malt) can be stored in a closed container at cool room temperature.

Before grinding into flour, chip off the shriveled roots and shoots, by rubbing the dried sprouts across a coarse sieve. Flour from sprouted wheat (enzyme-active malt flour) can be stored in a closed container, at cool room temperature.