

## Chemical components of the wheat (%)

<b>Table 1</b>	<b>Min.</b>	<b>Max.</b>
Protein (Nx5.7)	7.0	18.0
Ashes	1.5	2.0
Fats	1.5	2.0
Water (moisture)	8.0	18.0
Starch	60.0	68.0
Pentosans <sup>(1)</sup>	6.2	8.0
Saccharose <sup>(2)</sup>	0.2	0.6
Maltose <sup>(3)</sup>	0.6	4.3
Cellulose	1.9	5.0

(from G. Quaglia, *Scienza e tecnologia della panificazione*, Chirioti Editori, Italy)

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(1) Reducing sugars with five carbon atoms

(2) Non-reducing sugar, made up of two joined molecules, one glucose and one fructose. The term "reducing" in chemistry means that the substance with this property (or function) has high affinity with oxygen, with which it tends to combine itself thereby oxidizing, i.e. picking up oxygen ions and losing hydrogen ions. In the flours intended for making bread, the presence of "reducing" sugars is very important because it favours leavening. In flour intended for making pasta, it is basically harmful in that it favours the darkening and the loss of colour of the product, above all if it is in the presence of a significant percentage of water, as in fresh pasta, or in dried pasta when it is still very damp in the phases that precede the drying phase

(3) Reducing sugar derived from the degradation of a starch due to the action of the alpha-amylase enzyme

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