

研究论文

# CO<sub>2</sub>浓度增加对小麦和玉米品质影响的实验研究

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**摘要** 通过3种CO<sub>2</sub>浓度(700×10<sup>-6</sup>、500×10<sup>-6</sup>、350×10<sup>-6</sup>)模拟实验表明: CO<sub>2</sub>浓度增加使小麦籽粒的蛋白质、赖氨酸、脂肪含量增高, 淀粉含量下降, 品质得到提高; 玉米则相反, 其蛋白质、赖氨酸、脂肪含量随CO<sub>2</sub>浓度升高而减少, 淀粉含量略有增高, 品质有所下降。700×10<sup>-6</sup>的小麦籽粒粗蛋白、赖氨酸、粗脂肪、粗淀粉比350×10<sup>-6</sup>分别增长3.0%、3.0%、8.5%和-2.3%, 玉米增长-7.5%、-10.5%、-3.7%和0.6%; 500×10<sup>-6</sup>小麦分别增长4.4%、9.1%、11.3%和-1.7%; 玉米增长-5.0%、-5.3%、-4.0%和2.6%。

**关键词** [CO<sub>2</sub>浓度增加](#) [小麦](#) [玉米](#) [品质](#)

分类号

## The Experimental Research about the Effects of CO<sub>2</sub> Enrichment on Wheat and Corn Quality

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**Abstract** The simulation experiments under 3 CO<sub>2</sub> concentration (700×10<sup>-6</sup>, 500×10<sup>-6</sup>, 350×10<sup>-6</sup>) showed: the contents of protein, lysine, fat were increased, and starch content was decreased for wheat with CO<sub>2</sub> concentration enhancing. The quality of wheat was improved. On the contrary, the contents of protein, lysine and fat were decreased, and starch content has enhancement a little for corn. Compared with 350×10<sup>-6</sup> CO<sub>2</sub> concentration, the increasing rate of protein, lysine, fat and starch were 3.0%, 3.0%, 8.5%, -2.3% respectively for wheat, and -7.5%, -10.5%, -3.7% and 0.6% for corn under 700×10<sup>-6</sup> concentration; 4.4%, 9.1%, 11.3%, -1.7% for wheat, and -5.0%, -5.3%, -4.0% and 2.6% for corn under 500×10<sup>-6</sup> concentration.

**Key words** [CO<sub>2</sub> concentration enhancing](#) [Wheat](#) [Corn](#) [Quality](#)

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