

研究论文

硫对不同品质春小麦湿面筋和沉降值及氨基酸的效应

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摘要 以6个不同品质类型春小麦为材料, 在不同氮水平下, 研究施硫对湿面筋、沉降值及氨基酸的调节效应。结果表明, 高氮条件下(施尿素128 kg/hm²), 施硫可提高湿面筋含量和沉降值, 对高蛋白品种作用更明显。低氮(施尿素60 kg/hm²)条件下施硫, 除辽10的湿面筋和沉降值均降低外, 其它品种表现湿面筋含量降低而沉降值提高。高蛋白品种在氮供应较充足条件下, 硫才能发挥改善各项品质指标的作用, 否则, 氮将成为硫发挥作用的限制因素。氮施用水平较高时, 硫可提高不同品种的总氨基酸和含硫氨基酸含量, 且含硫氨基酸与湿面筋和沉降值呈正相关。

关键词 [春小麦](#) [湿面筋](#) [沉降值](#) [氨基酸](#)

分类号 [S512](#)

Effects of Sulphur on Wet Gluten, SDS-Sedimentation Value and Amino Acid in Spring Wheat Cultivars with Different Quality

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Abstract The effects of nitrogen and sulphur on wet gluten and SDS-sedimentation value and amino acid were studied by using six cultivars with different quality. Under high nitrogen application (urea 128 kg/hm²), the wet gluten and SDS-sedimentation value could be increased by sulphur application, especially for the cultivars with high grain protein content. In lower nitrogen treatment (urea 60 kg/hm²), the wet gluten content was decreased by sulphur application, but increased in SDS-sedimentation value except Liao10. It suggested that nitrogen level would be a factor of sulphur effect on grain quality. The total contents of amino acid and sulphur - amino acid in grain were increased by sulphur application under the condition of high nitrogen level, and the positive correlation between sulphur-amino acid and wet gluten and SDS-sedimentation value were found. Thus the grain quality could be improved.

Key words [Spring wheat](#); [Wet gluten](#) [SDS-sedimentation value](#) [Amino acid](#)

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