

Title Grain active ventilation using ozonized air
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Abstract

A decrease of energy consumption is possible if grain is actively dried at low air temperatures. Additionally compared to warm air drying this can have a positive effect on grain quality. The drying process with cold air can be improved when gaseous ozone is added to the air. Laboratory experiments show that the drying efficiency increased up to about 10%, if active drying is performed using ozonized air. The presence of ozone in the grain active drying process increases the amount of moisture carried out independent of the initial grain moisture content. It does not essentially improve the initial grain drying process until the intergrain space is dry. At high ventilation speed the efficiency of the ozone application decreases because the drying effect of the air prevails the ozone effect.