

Title Corn seed quality as affected by CO₂ and N₂ during storage
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Abstract

Two cultivars, 'No. 39' and 'No. 40', of sweet corn seeds stored in glass bottles filled with 100% of CO₂ and N₂ and normal air (control sample) at room temperature (28 ± °C) for 12 months were investigated. Germination and seed vigour, determined by accelerate aging and germination index, of 'No. 40' was higher than that of 'No. 39'. However, free fatty acid content of 'No. 40' was significantly lower. CO₂ and N₂ significantly delayed germination percentage and seed vigour compared to the normal air. Free fatty acid value was not influenced by storage conditions. Our results demonstrate that CO₂ and N₂ can be appropriated technique to apply for commercial level by flushing gas in a laminate bag.