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### Endogenous Gibberellins in Bulbils of Chinese Yam during Growth and Storage

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**Abstract:** Five gibberellins in the early-13-hydroxylation pathway (GA<sub>53</sub>, GA<sub>44</sub>, GA<sub>19</sub>, GA<sub>20</sub> and GA<sub>1</sub>), and six gibberellins in the non-13-hydroxylation pathway (GA<sub>12</sub>, GA<sub>15</sub>, GA<sub>24</sub>, GA<sub>9</sub>, GA<sub>36</sub> and GA<sub>4</sub>), were detected in the bulbils of Chinese yam. This indicated the presence of two gibberellin biosynthetic pathways in bulbils. The total endogenous gibberellins were dramatically increased in enlarged bulbils. The endogenous level of bioactive GA<sub>4</sub> was always higher than that of GA<sub>1</sub>. A rapid increase in endogenous gibberellins including bioactive GA<sub>4</sub> was observed during a 30-day storage period. These results show that gibberellins are closely related to bulbil enlargement and dormancy in Chinese yam plants. However, further research is needed for better understanding of the fluctuation of gibberellin levels in bulbils of Chinese yam during storage.

**Keywords:** [Bulbils](#), [Chinese yam](#), [Dioscorea opposita](#), [Gibberellins](#), [Growth](#), [Storage](#)

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