Title Hormonal control of sprouting of sweetpotatoes in storage

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Abstract

An understanding of the control of sprouting of sweetpotatoes (*Ipomoea batatas*) is important, both for marketing of sweetpotatoes in the developed world and for the role of the crop for food security in the developing world. Long-term storage of sweetpotatoes requires inhibition of sprouting, while stimulation of sprouting is necessary for the production of planting material. Many studies have been conducted on the control of sprouting/dormancy of potatoes whereas sprouting in sweetpotatoes is less studied. Recently, exposure to ethylene has been introduced as a commercial method for controlling of sprouting in potatoes. Data presented here show that 20 ppm ethylene is effective in controlling sprouting in sweet potato over 4 weeks of storage at 25°C. Gibberellins appear to have a key role in stimulating sprout growth in potato. Trials using gibberellins and gibberellin synthesis inhibitors suggest that gibberellins are likewise involved in the stimulation of sprouting in sweetpotatoes.