



A REVIEW

Physiology of fruits plants affected by growth retarding chemicals

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Abstract : Papaya (*Carica papaya* Linn.) is a fast-growing tropical and subtropical fruit crop valued for its high nutritional and medicinal properties. Originating from Mexico and tropical America, it is now extensively cultivated in India, with Gujarat being a major producer. Papaya exhibits three sex forms-monoecious, dioecious and hermaphrodite, making sex determination possible only after flowering. Growth retardants such as Ethrel, Cycocel (CCC) and Paclobutrazol significantly influence plant growth, flowering, and fruit quality. Ethrel application (200–1000 ppm) enhances femaleness, induces early flowering and improves fruit quality parameters while Cycocel (3000 ppm) increases growth parameters and promotes early flowering and fruit set in papaya, guava, grapes and mango. Paclobutrazol (500–2000 ppm) effectively reduces vegetative growth, alters sex expression and enhances fruit set and yield.

Key Words : Fruits plants, Growth, Chemicals

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