

Thesis Title	Growth and Development of Haemanthus		
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Abstract

Study on growth and development of haemanthus was carried out by examining the growth cycle of the plant. Morphological aspects as well as bulb structure of the plant were described. It revealed that the root system of the plant was fibrous. The stem was modified as the basal plate while layers of the leaf petioles served as the pseudostem. The leaves were oblong in shape. The bulb was tunicate comprising of a basal plate and layers concentric succulent scales modified from bases of leaf petioles. A terminal floral bud and an adjacent lateral leaf bud were found at the center of the bulb. The inflorescence was umbel type with a large number of florets. The petals, red in colour, of each floret were fused at the base forming a floral tube of 6 petal segments. There were 6 versatile stamen in each floret. The inferior ovary contained 3 carpels.

The life cycle of haemanthus composed of vegetative and reproductive stages and the dormant period. The plant started the cycle of growth by the emergence of the floral bud in May. Leaf shoot began to emerge by the end of anthesis in late June. Dormant period took place after the dying back of vegetative parts starting from January to April. Floral initiation was detected at a certain stage of leaf growth followed by organogenesis of the floral parts. Growth and development of the flowers carried on gradually while the new bulb entered the dormant period. Enlargement and elongation of the inflorescence was then actively resumed when dormancy of the bulb was overcome. Symbols of flowering process of haemanthus could be stated as I , II , P_r , B_r , P , A and G. As for new bulb formation, it showed that the new bulb was composed of layers of scales modified from the base of the leaf petioles of the mother plant. The new bulb obtained only two buds situated at the center of the bulb, the terminal one being floral and the lateral vegetative.