

The present invention relates to the use of LCOs in initiating earlier flowering, increased number of buds and flower i buds and earlier fruit development in non legume and legume plants, as compared to flowering and fruit development under conditions i without use of LCOs, and the enhancement of plant growth and yield associated therewith; to compositions comprising an effective amount of at least one LCOs and agriculturally acceptable carriers, associated with earlier flowering, increased bud and flower numbers and earlier initiation of fruit development as compared to conditions without use of LCOs, and with increased growth and plant yield; and to methods using LCOs and compositions of one or more LCOs and agriculturally acceptable carriers, associated with earlier flowering initiation, increased bud and flower numbers and earlier fruit development in both legume and non-legume crop plants as compared to conditions without use of LCOs and associated enhancement of growth and yield.