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Effect of Paclobutrazol, a Gibberellin Biosynthesis Inhibitor, on Dark-Grown Protonema of *Ceratodon Purpureus*

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EFFECT OF PACLOBUTRAZOL, A GIBBERELLIN BIOSYNTHESIS INHIBITOR, ON DARK-GROWN PROTONEMA OF *CERATODON PURPUREUS*.

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Plants utilize chemical messages called plant hormones to regulate growth and development. One of these plant hormones, gibberellin, mediates a number of developmental processes in flowering plants, including seed germination, flowering, and stem elongation. While there is a wealth of information about GAs in flowering plants, there are only a few references in the literature concerning GA's in mosses, a non-flowering plant.

Preliminary research by former IWU student (Justin Paprick) suggested that the exogenous application of a GA biosynthesis inhibitor resulted in a decreased growth response in the moss *Ceratodon purpureus*. This decrease in growth suggests that endogenous gibberellins are important for growth in *C. purpureus*. To further investigate the role of gibberellins in *C. purpureus*, a GA biosynthesis inhibitor was applied to dark-grown protonema (a juvenile form in moss) and the growth response was analyzed. The results of this analysis will be presented.