Abstract

Seed germination scheme of cereal plants is cited in the biology textbooks for high school, however there is no description on the basis of experimental demonstration. In this article, we describe a new set of experimental teaching materials to support the learning of germination process in rice seeds. Six experiments were included in the set: (1) detection of amylase activity in germinating seeds, (2) induction of amylase activity in embryo less half seeds by application of 1 μ M gibberellin, (3) inhibition of germination and amylase synthesis by 40 μ M uniconazole, (4) detection of amylase activity in aluerone layer isolated from germination seeds, (5) detection of amylase secreted from isolated aleurone layer during culture, (6) inhibition of germination and amylase synthesis by the application of 40 μ M abscisic acid. This series of experiments would be helpful to better understanding the role of gibberellin function in seed germination.