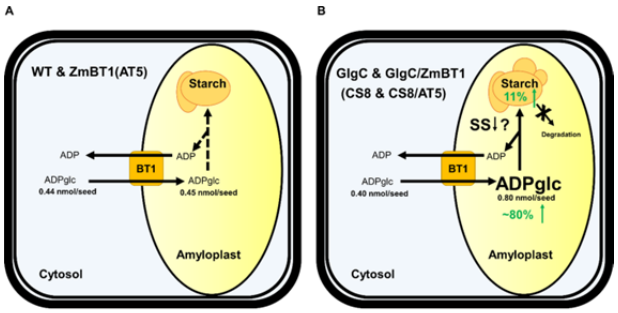

Fig. 7. Summary of ADPglc compartmentalization in WT and transgenic lines. **A)** ADPglc levels are present at nearly equal amounts in the cytosol and amyloplasts in WT and ZmBT1 (AT5) lines. **B)** ADPglc levels in GlgC (CS8) and GlgC/ZmBT1 (CS8/AT5) lines are significantly increased (~80%) in amyloplasts while slightly decreased (~9%) in the cytosol compared to WT and ZmBT1 (AT5) lines. This nearly doubling of ADPglc levels, however, only translated into around 11% increase (on average based on three independent transgenic lines) in starch content indicating that maximum flux of carbon into starch is tightly regulated. This slowing in net starch synthesis, mediated by elevated ADPglc levels, is probably not caused by starch turnover but more likely by reduction in a one or more starch synthase (SS) isoform enzyme activities.