

### Supplementary material

#### **Fig. S1. Starch accumulation is dependent on the continuous presence of sugars in the growth medium.**

*tnp* seedlings were grown for 3 d on medium containing sucrose and then transferred to medium containing either (A) 1% sucrose or, (B) no sucrose for 8 d and then stained with Lugol's solution.

#### **Table S1. Osmotic stress does not induce penetrance of *tnp*.**

*tnp* seed were germinated on 1/2MS medium containing either 0% or 1% sucrose or 1% mannitol and *tnp* penetrance was determined 7 days post-germination. Arrows indicate the position of the swollen hypocotyl.