PROJECT TITLE

The role of PLC in drought tolerance

CONSORTIUM

P 1	Teun Munnik		
P 2	Max van Hooren		

SUMMARY OF THE REPORT

The role of PLC in drought tolerance

We are studying the role of phospholipase C (PLC) in plant stress signalling and development. Overexpression (OE) of PLC has been shown to enhance the drought tolerance of maize, rice, tobacco and canola (Wang *et al*. ,2008; Georges *et al*.,2009; Tripathy *et al*., 2012), and our lab has recently found this for three independent Arabidopsis *PLCs* (Zhang et al., 2018a,b, van Wijk 2018). To increase our understanding of the molecular mechanism by which PLC improves drought tolerance, we have overexpressed three additional *PLC* genes (i.e. 6 out of 9 At*PLCs* total), and created multiple transgenic lines that express At*PLC5* driven by 13 different cell/tissue-specific promoters. The Phenotype platform is used to characterize them.