

Executive Summary

The objective of the programme is to identify individual agronomically-relevant processes and treatments that would increase the production of the anti-Alzheimer drug, Galanthamine, in daffodils (to identify the basis of the so called Black Mountain Effect observed in the field). Extensive and reproducible analysis of 18 different treatments applied individually (under laboratory and greenhouse conditions) have so far failed to find any that mimic the Black Mountain effect and have been eliminated from likely target processes. We consider this to be an unequivocal (and hence positive) result. Some treatments significantly increase concentration of alkaloids, but at the expense of fresh weight growth; the overall yield per plant remaining unchanged or less.