Hennock International Ltd
Consulting engineers to the land based industries.
www.hennock.co.uk +44 (0) 1626 833661

JEPCO Ltd, Browns Farm, Gedney Drove End, PE12 9NN

Proposed plant breeding facility: rainfall and reservoir sizing

Existing buildings – drainage is not altered.

New catchment areas:

Greenhouse	960m2
Concrete yard	638m2
Reservoir	404m2
Total	1,042m2

Reservoir basic dimensions:

External	25m x 25m
Bank height above ground	0.5m
Depth below ground	1.5m
Inner bank batter	3:1
Outer bank batter	2.5:1
Bank top	2.4m
Freeboard	0.45m (storm attenuation reservoir so freeboard reduced)

Reservoir capacity:

Excluding freeboard	229m3
Including freeboard	378m3

Rainfall event
(including 20% CC allowance) 114.5mm

Required storage capacity
for above 229m3

Pumping capacity (min reqd) 115m3/day (50% of above).

Pumping capacity actual 8.5m3/h @ 7m head = 204m3/day
Grundfos AP12.40.04.03 so in excess of minimum.
415v