

()

(Matthiola incana L.) cv. Asanami

//

: + : () ::
)
) (

()

:

.()

.())

()

.(

() +()

()

.()

()

%

()

()

.()

%

.()

.()

)

(

()

()

()

)

.(

2. High Performance Liquid Chromatography

3. Oven

1. cv. *Asanami*

$$W_C = \frac{A_X \left(\frac{2}{A_R} \right)}{M_s}$$

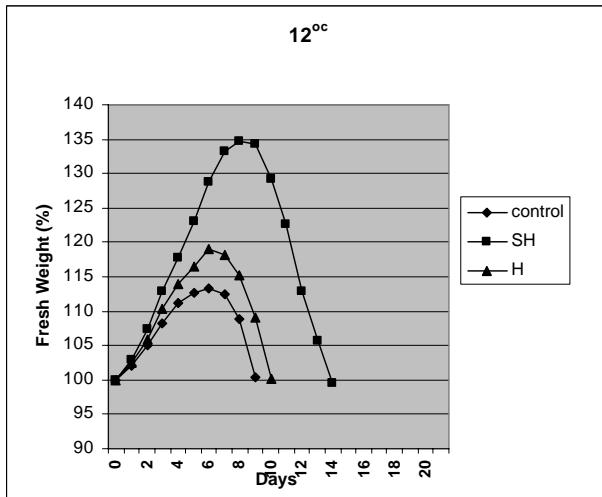
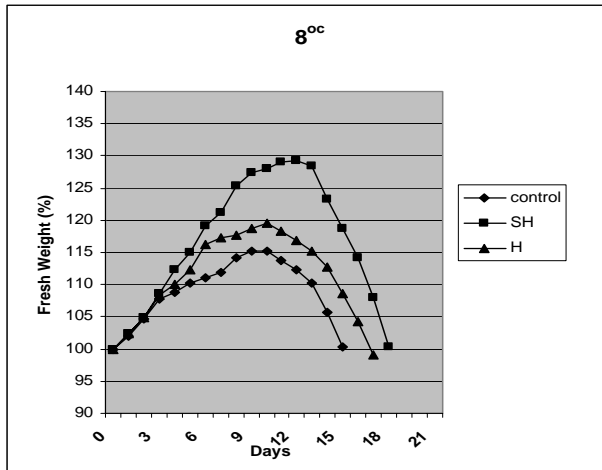
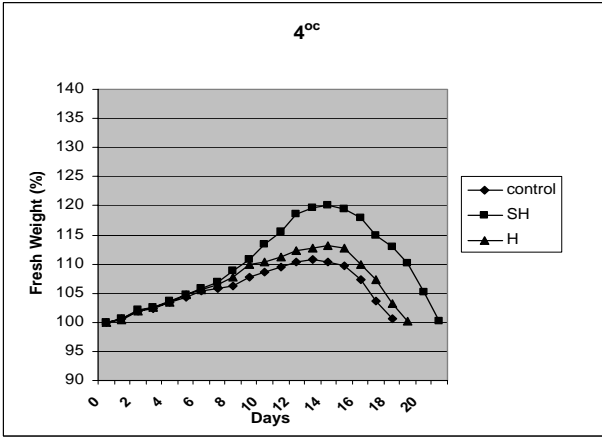
:)
 =W_C % ()
 =A_X
 =A_R
 =M_S
 ()
 %

()
 ()
 SAS
) C₁₈
 ()
 % %

Excel Xp

()
 ()
 :()

-
1. Internal Standards
 2. Shaker
 3. Centrifuge
 4. Sartorius A.G., Goettingen, Germany
 5. Resteck, Bellefonte, USA
 6. Waters, USA
 7. Shodex SUGAR
 8. Refractive Index Detector (RI)



(H) + (SH)

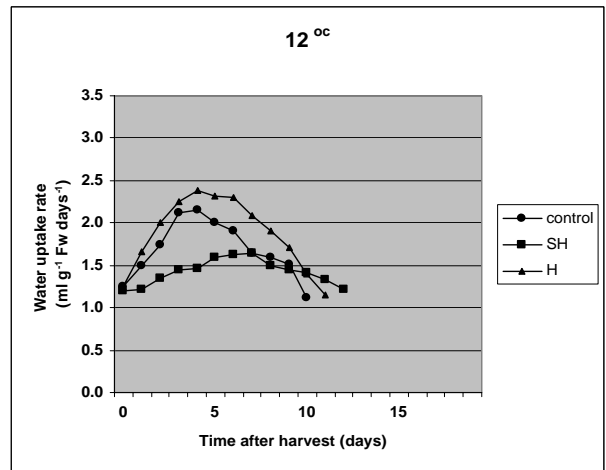
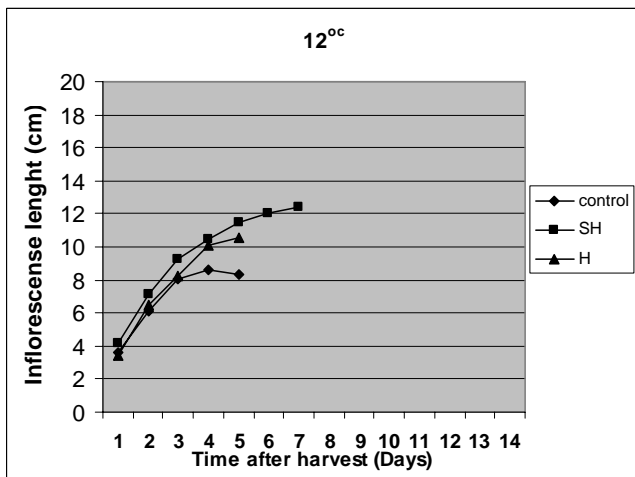
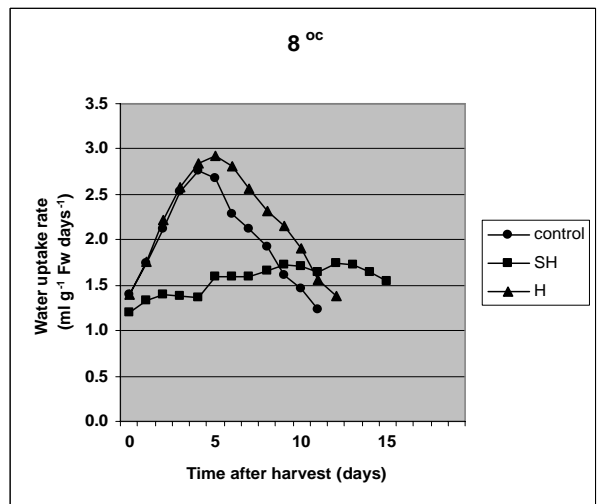
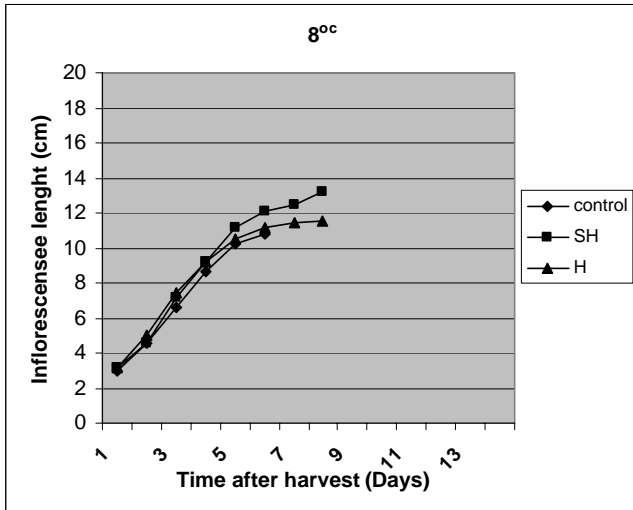
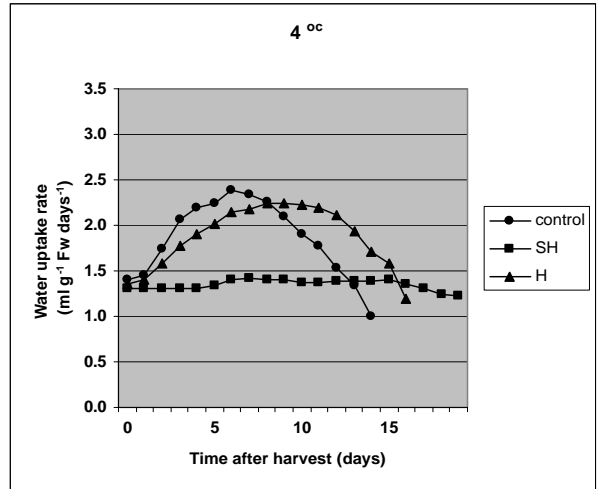
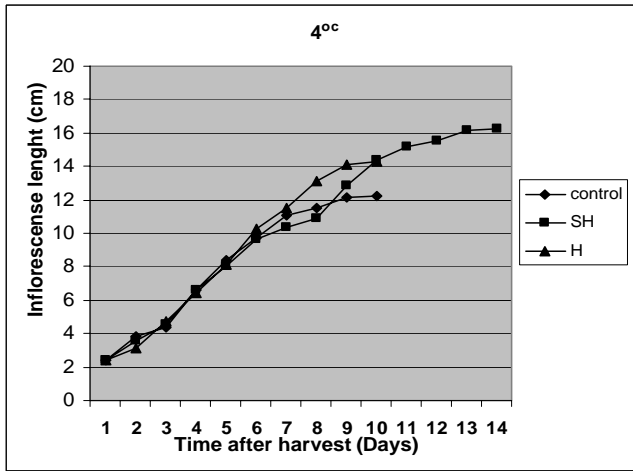
() / ()
 / () +
 / () +
 / () +
 / () +

+ ()
 .()

+
)
 . (P < /) (P < /)
 .(P < /)
 .()
 ()
 +

...

:



((H) + (SH))

((H) + (SH))

()

+

+

()

+

+

+

+ ()

()

() () () ()

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

/ / / / / / / / /

()

+

()

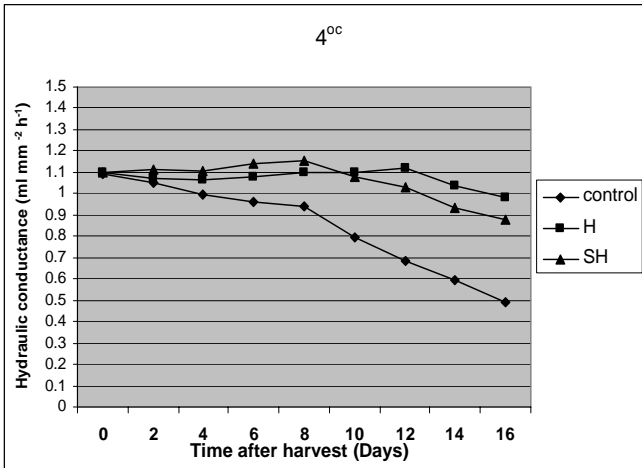
+

()

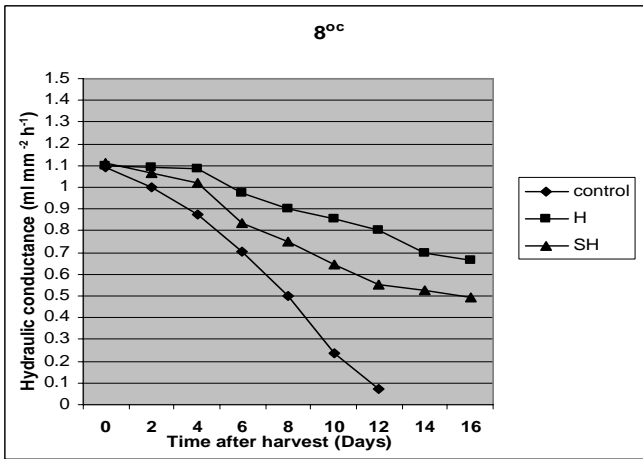
+

...

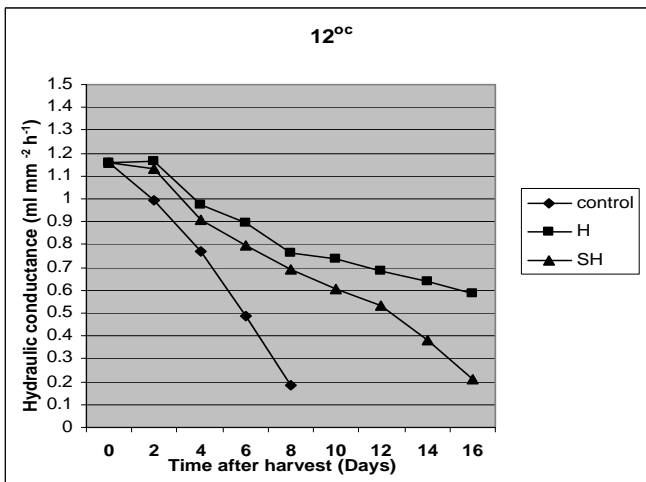
:



() ()
 ()
 +
 ()



()
 ()
 ()
 ()
 ()
 ()
 ()



+
 ()
 +
 ()

()
 + ()
 ((H) (SH)

()
 ()

()

()

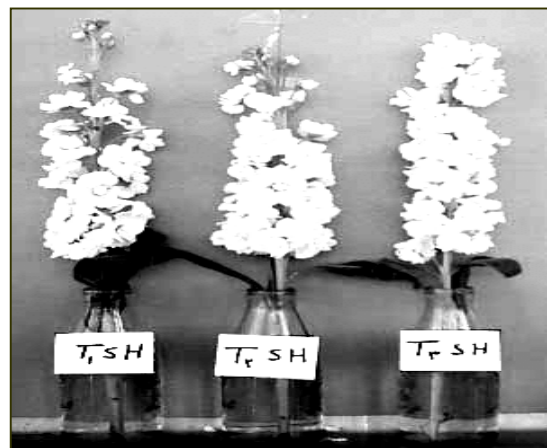
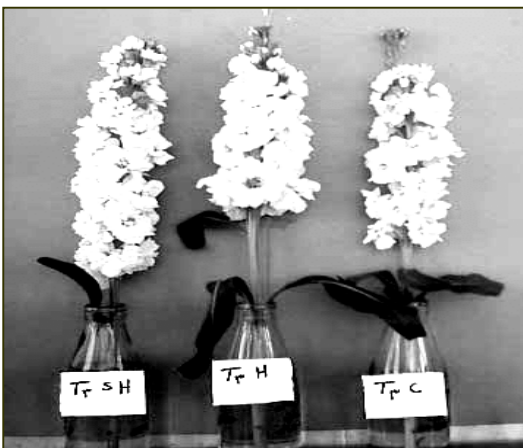
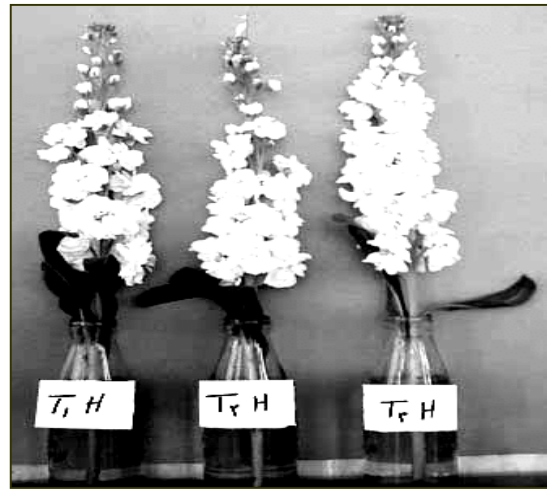
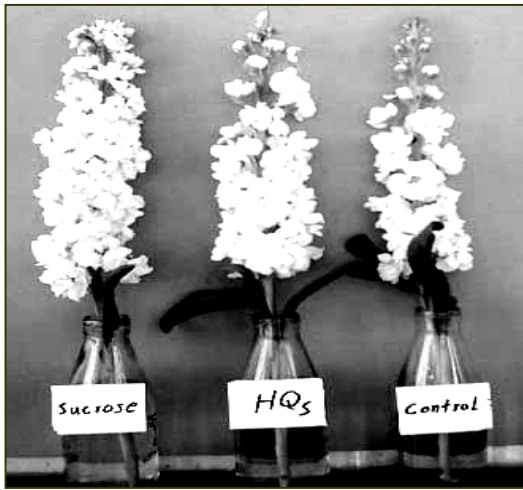
()

()

()

+

+



(H)

()

()

)

(

(H)

(control)

)

(

(

(SH)

+

(

(SH)

+

((H)

(control)

)

(

REFERENCES

1. Anju, P., & K. Santosh. 2003. Effect of floral preservatives on postharvest management in gladiolus spikes; *Journal of Ornamental Horticulture*; 6(4): 36-371.
2. Bhaskar, V.V., P. V. Rao, Y. N. Reddy. 2000. Effect of certain chemicals on the postharvest life of cut tuberose cv. Double; *Journal of Ornamental Horticulture*; 3(1): 6-11.
3. Burdett, A.N. 1970. the cause of bent neck in cut roses; *J. Am. Soc. Hort. Sci.*; 95, 427-431.
4. Celike, F.G. & M. S. Reid. 2002. postharvest handling of stock (*Matthiola incana*); *HortScience*; 37(1): 144-147.
5. Gilman, K. F., P. L. Steponkus. 1972. Vascular blockage in cut roses; *J. Am. Soc. Hort. Sci.*; 97, 662-667.
6. Halevy, A.H., & S. Mayak. 1979. Senescence and Postharvest physiology of cut flowers; part 1. *Hortic. Rev.*; 1, 204-236.
7. Ichimura, K., & S. Ueyama. 1988. Effects of temperature and application of aluminum sulfate on the postharvest life of cut rose flowers; *Bull. Natl. Res. Inst. Veg. Ornam. Plants Tea*; 13, 51-60.
8. Ichimura, K., K. Kohata, M. Koketsu, Y. Yamaguchi, H. Yamaguchi, & K. Suto. 1997. Identification of methyl glucopyranoside and xylose as soluble sugar constituents in roses (*Rosa hybrida* L.); *Biosci, Biotech, Biochem.*; 61, 1734-1735.
9. Ichimura, K., K. Kojima, & R. Goto. 1999. Effects of temperature, 8-Hydroxyquinoline sulphate and sucrose on the vase life of cut rose flowers; *Postharvest Biology and Technology*; 15, 33-40.
10. Jones, R.B., & M. Hill. 1993. The effect of germicides on the longevity of cut flowers; *J. Am. Soc. Hort. Sci.*; 118m 350-354.

11. Kaltaler, R.E.L., & P. L. Steponkus. 1974. Uptake and metabolism of sucrose in cut roses; *J. Am. Soc. Hortic. Sci.*; 99, 490-493.
12. Kaltaler, R.E.L., & P. L. Steponkus. 1976. Factors affecting respiration in cut roses; *J. Am. Soc. Hortic. Sci.*; 101, 352-354.
13. Kuiper, D., S. Ribot, H. S. Van Reenen, & N. Marissen. 1995. The effect of sucrose on the flower bud opening of Made Ion cut roses ; *Sci. Hortic*; 60, 325-336.
14. Marousky, F. J. 1969. Vascular blockage, water absorption, stomata opening and respiration of cut Better times roses treated with 8-hydroxyquinoline citrate and sucrose; *J. Am. Soc. Hortic, Sci*; 94, 223-226.
15. Marousky, F. J. 1971. Inhibition of vascular blockage and increased moisture retention in cut roses induced by pH, 8-hydroxyquinoline citrate, and sucrose; *J. Am. Soc. Hort. Sci*; 96, 38-41.
16. Parups, E.V., & A. P. Chan. 1973. Extension of vase life of cut flowers by use of isoascorbate-containing preservative solutions; *J. Am. Soc. Hort. Sci.*; 98,22,26.
17. Rekha, M.K., & V. Shankaraiah. 2002. Effect of storage conditions and preservative solutions on vase life of cut gladiolus spikes; *Indian Soc. of Ornamental Horticulture*; 126-129.
18. Sindhu, S.S., & N. S. Pathania. 2003. Effect of pulsing, holding and low temperature storage on keeping quality on Asiatic lily hybrids; *Acta hort.*; (624): 389-394.
19. Stoddard, E.M., & P. M. Miller. 1962. Chemical control of water loss in growing plants; *Science*; 17, 224-225.
20. Uda, A., K. Fukushima, & Y. Koyama. 1995. Effects of temperature and light and dark conditions on wilting of cut rose; *Bull. Hyogo. Pre. Agric. Inst. (Agric)*; 43, 101-106.
21. Ueyama, S., & K. Ichimura. 1998. Effects of 2-hydroxy-3-ionene chloride polymer on the vase life of cut rose flowers; *Postharvest. Biol. Technol*; 14, 65-70
22. Van Doorn, W. G.. 1997. Water relations of cut flowers; *Hortic, Rev.*; 18,1-85.
23. Van Doorn, W.G., K. Schurer, & Y. de Witte. 1989. Role of endogenous bacteria in vascular blockage of cut rose flowers; *J. Plant Physiol.*; 134, 375-381.
24. Van Doorn, W.G., H. C. M. De stigter, Y. De Witte, & A. Boekestein. 1991a. Micro-organisms at the cut surface and in xylem vessels of rose stems: a scanning electron microscope study ; *J. Appl. Bacteriol*; 70, 34-39.
25. Zagory, D., & M. S. Reid. 1986. Role of vase solution Micro-organisms in the life of cut flowers; *J. Am. Soc. Hortic. Sci.*; 111, 154-158.